

TEXAS WATER COMMISSION

Bert

B. J. Wynne, III, Chairman
John E. Birdwell, Commissioner
Cliff Johnson, Commissioner



John J. Vay, General Counsel
Michael E. Field, Chief Hearings Examiner
Brenda W. Foster, Chief Clerk

Allen Beinke, Executive Director

January 10, 1990

Part B

[Signature]

Anthony Robledo, Chief
Texas Section
Hazardous Waste Management Division
U. S. Environmental Protection Agency
Region VI - 6H-PT
1445 Ross Avenue
Dallas, Texas 75202

Re: Rexene - Pasadena
Solid Waste Registration Number 30486
Permit Application Number 50066
EPA I. D. Number TXD020800371

Dear Mr. Robledo:

Enclosed is an Administrative Notice of Deficiency Response received on December 27, 1989 to the Part B hazardous waste permit application for the subject facility.

Comments should be addressed to Kyle Shelton at (512) 463-8278.

Sincerely,

Cheryl A. Wilson

Cheryl A. Wilson, Head
Reports and Information Management Unit
Hazardous and Solid Waste Division

BB:am

Enclosure

cc: Gerald Hord, Regional Manager, Texas Water Commission
Southeast Region - Deer Park Office
Lawrence E. Pewitt, P. E., Permits Division, Texas Air Control
Board, 6330 Highway 290 East, Austin, Texas 78723



REC'D

POST OFFICE BOX 3986 • ODESSA, TEXAS 79760 • 915-333-7200

December 21, 1989

Mr. Kyle Shelton
Permits Section
Hazardous and Solid Waste Division
Texas Water Commission
P. O. Box 13087 Capitol Station
Austin, Texas 78711

Re: Pasadena Facility
Administrative Completeness
Industrial Solid Waste Registration No. 30486
Proposed Permit No. HW-50066

Dear Mr. Shelton:

As requested in Mr. Minor Hibbs letter dated December 1, 1989, Rexene Products Company is submitting the following information:

The original and four copies of the signed and notarized signature page is included as Attachment I to this letter.

Included as Attachment II to this letter is an updated, revised list of adjacent landowners. This list is labeled "Attachment B-1". Also included under Attachment II are two drawings which reference the attached list of landowners. These drawings are labeled "Attachment B-2" and "Attachment B-3". An original and four copies of the landowners list and the drawings are being provided.

I hope this information will allow the Part B Application for the Pasadena Facility to be considered administratively complete and allow the review process to continue. I sincerely apologize for the delay in providing this information to the T.W.C. and any inconvenience it may have caused.

If there are any questions or if additional information is required concerning this matter, please feel free to contact me at 915/333-8205.

Sincerely,

S. A. Melton, Specialist
Environmental Regulatory Affairs
REXENE PRODUCTS COMPANY

SAM/sj
(SAM-166-89)

Lyondell

Sub.

Aveo

5100

owner

Environmental

Bill Vancey
Env.713
452
8889Lyondell
Debbie Krieger# 713
452
8889

EXECUTIVE DIRECTOR
TEXAS WATER COMMISSION
ATTN: Hazardous and Solid Waste Division
P.O. Box 13087, Capitol Station
Austin, Texas 78711

FOR DEPARTMENT USE ONLY
Application No. _____
Permit No. _____
Adm. Review By _____
Administratively _____
Complete _____
Copies Sent: _____

INDUSTRIAL HAZARDOUS WASTE PART B PERMIT APPLICATION

Please refer to the Instructions when preparing this application.

I. GENERAL INFORMATION

A. Applicant: Rexene Products Company
(Individual, Corporation, or Other Legal Entity Name)

Address: P. O. Box 3986

City: Odessa State: Texas Zip Code: 79760

Telephone Number: (915) 333-7200

If the application is submitted on behalf of a corporation, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas. Delaware 2083012
(Charter Number)

- B. 1. List those persons or firms, including a complete mailing address and telephone number, authorized to act for the applicant during the processing of the permit application.
- 1) L. N. Anderson, Executive Vice President of Manufacturing/Technical
 - 2) M. P. Hughes, Vice President of Environmental, Health and Safety
- address: Rexene Products Company
P. O. Box 3986
Odessa, Texas 79760
Telephone: (915) 333-7200
2. If the application is submitted by a corporation or by a person residing out of state, the applicant must register an Agent in Service or Agent of Service with the Texas Secretary of State's office and provide a complete mailing address for the agent. The agent must be a Texas resident.
- CT Corporation
1601 Elm Street
Dallas, Texas 75201
(214) 979-1172
3. List the individual and his/her mailing address that will be responsible for causing notice to be published in the newspaper.
- Same as applicant

I, L. N. Anderson, Executive Vice President
(Name) (Title)

certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of civil penalty and criminal fines.

Signature: *L. N. Anderson* Date: 12-15-89
L. N. Anderson, Executive Vice President

TO BE COMPLETED BY THE APPLICANT IF THE APPLICATION IS SIGNED BY AN AGENT FOR THE APPLICANT.

I _____ hereby designate _____
(Print or Type Name) (Print or Type Name)

as my agent and hereby authorize said agent to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Water Commission in conjunction with this request for a Texas Water Code or Texas Solid Waste disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my agent in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Printed or Typed Name of Applicant
or Principal Executive Officer

Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

SUBSCRIBED AND SWORN to before me by the said

L. N. Anderson on this 15th day of December, 19 89

My commission expires on the 10th day of September, 19 93



CAROLYN J. TRIPP
Notary Public, State of Texas
My Commission Expires 9-10-93

Carolyn J. Tripp
Notary Public in and for
THE STATE OF TEXAS

ECTOR County, Texas

ATTACHMENT B-1

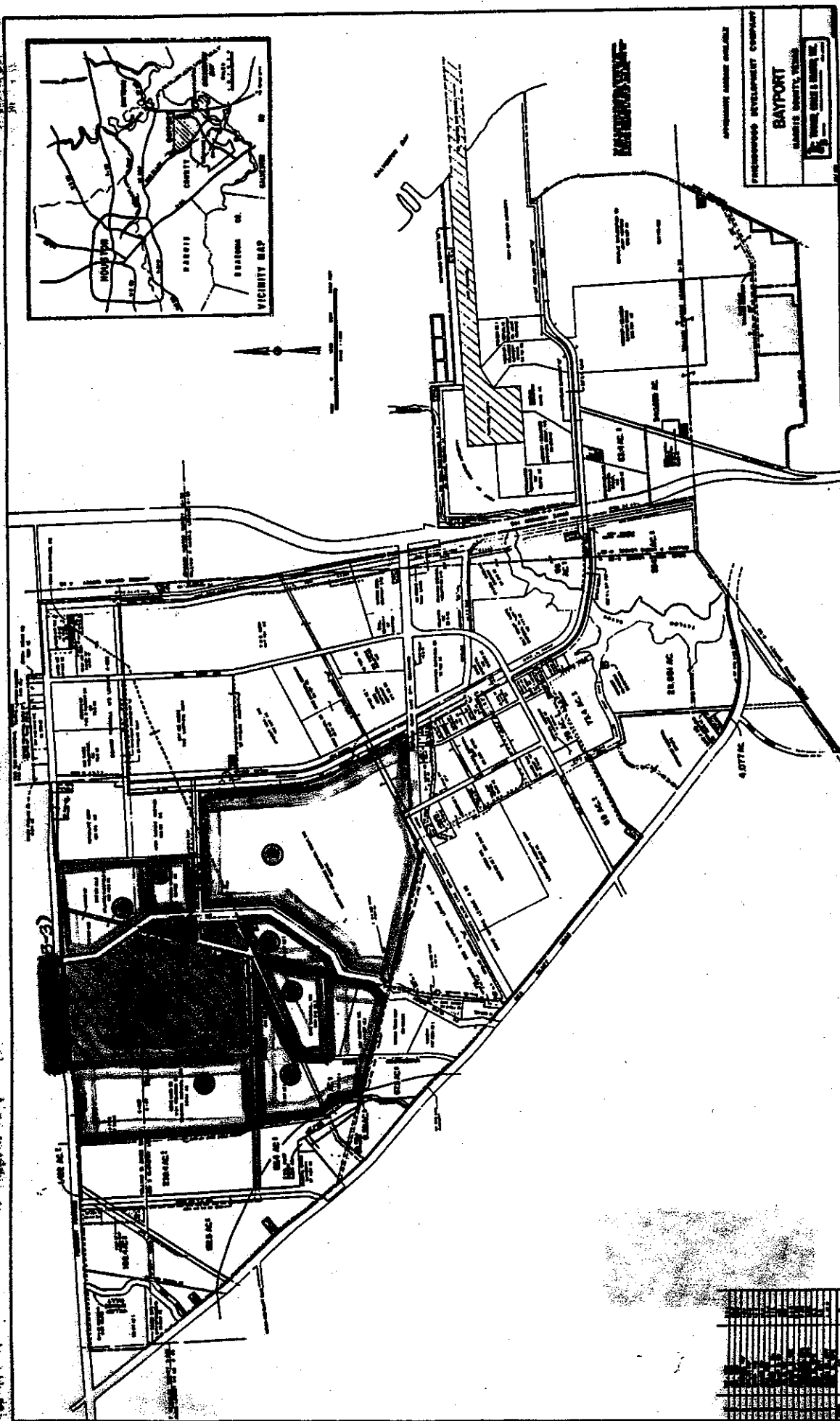
ADJACENT LAND OWNERS

REXENE PRODUCTS COMPANY - BAYPORT FACILITY

1. ATLANTIC RICHFIELD COMPANY (ARCO)
3500 Entex Bldg.
1200 Milam
Houston, Texas 77002
 2. SOUTHERN IONICS TEXAS
12901 Bay Park Rd.
Pasadena, Texas 77507
 3. HOECHST-CELANESE CHEMICAL GROUP, INC.
1250 W. Mockingbird Lane
Dallas, Texas 75247
 4. OXY PETROCHEMICALS, INC.
Five Greenway Plaza, Suite 2500
Houston, Texas 77046
 5. ICI AMERICAS, INC.
New Murphy Rd. and Concord Pike
Wilmington, Delaware 19897
 6. CHEVRON USA, INC.
P. O. Box 5050
San Ramon, California 94583-0905
 - A. EXXON COMPANY, USA
P. O. Box 4160
Houston, Texas 77252-4160
 - B. CIRCLE K COMPANY, INC.
Karl Eller
P. O. Box 52085
Phoenix, Arizona 85072-2085
 - C. FAIRMONT PARK JOINT VENTURE
C/O GRAY ENTERPRISES
P. O. Box 638
Baytown, Texas
 - D. J. P. SERVICE CENTER
J. P. Jackson
P. O. Box 7018
Pasadena, Texas 77508
-

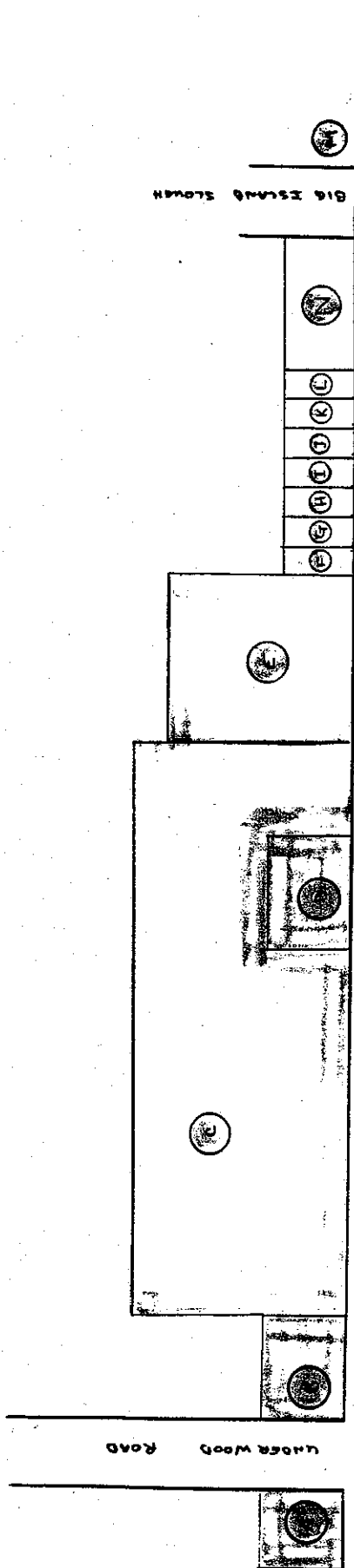
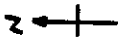
- E. REID ELEMENTARY SCHOOL
LAPORTE INDEPENDENT SCHOOL DISTRICT
724 S Broadway
LaPorte, Texas 77571
- F. BRYON E. COOPER, JR.
9930 Parkway
LaPorte, Texas 77571
- G. DENNIS M. & ELIZABETH CASTO
9934 Parkway
LaPorte, Texas 77571
- H. MICHAEL J. FISHBECK
9938 Parkway
LaPorte, Texas 77571
- I. ADMIN VETERANS AFFAIRS
2515 Murworth Dr.
Houston, Texas
- J. CROOK JERRY W. & ANNA N.
1041 Fairway
Clovis, New Mexico
- K. GOOD ROBERT A. & VERA M.
9950 Parkway
LaPorte, Texas 77571
- L. FAIRMONT PARK JOINT VENTURE
C/O GRAY ENTERPRISES
P. O. Box 638
Baytown, Texas
- M. FAIRMONT PARK JOINT VENTURE
C/O GRAY ENTERPRISES
P. O. Box 638
Baytown, Texas
- N. FAIRMONT PARK JOINT VENTURE
C/O GRAY ENTERPRISES
P. O. Box 638
Baytown, Texas

ATTACHMENT B-2

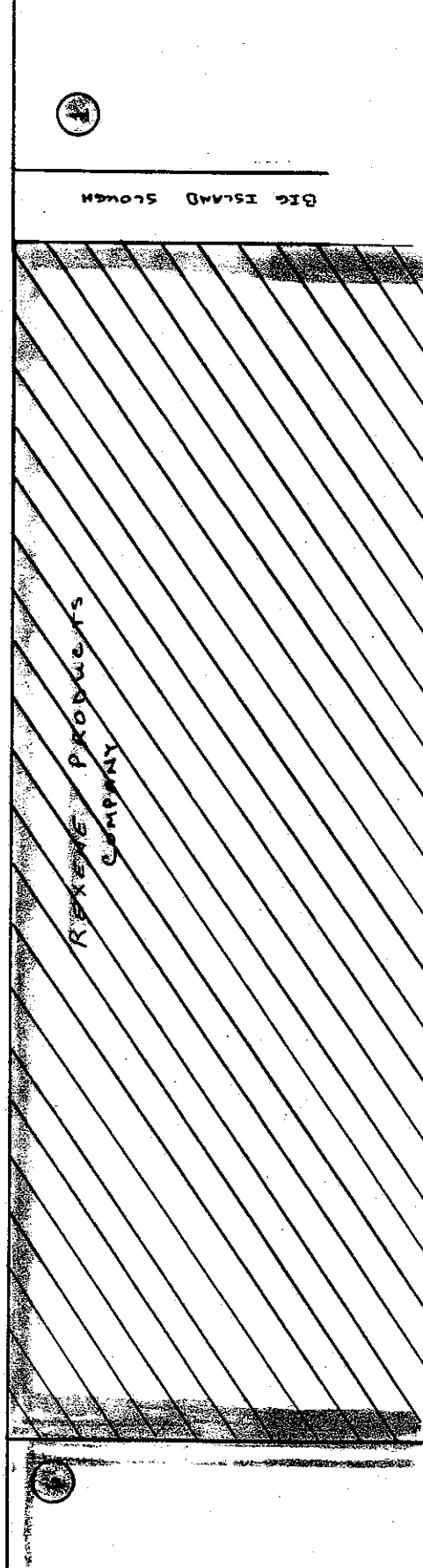


ATTACHMENT B-2

ATTACHMENT B-3



FAIRMONT PARKWAY





**EL PASO
PRODUCTS
COMPANY**

November 4, 1988

Executive Director
Texas Water Commission
P. O. Box 13087 Capitol Station
Austin, Texas 78711

Re: Addendum to Part B Permit Application
Draft Permit HW 50066

Dear Sir:

With this letter Rexene Products Company is submitting an addendum to its original Part B Permit Application submitted in 1985 for our Pasadena facility (N.O.R. 30486). The addendum includes the Section VIII - Releases From Solid Waste Management Units and Corrective Action information required by the Hazardous and Solid Waste Amendments (HSWA) of 1984.

If you have any questions or need additional information concerning the addendum, please feel free to contact me at 915-333-8562.

Sincerely,

D. R. Smith, Director
Environmental Regulatory Affairs

DRS/sj
(DRS-238-88)

TABLE VIII-2-HAZARDOUS WASTE MANAGEMENT FACILITY UNITS

				Wastes Managed in the Facility Unit		Constituents listed in Appendix VIII 40 CFR 261 contained in the waste		Release		Comments	
Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)		Waste Code or Verbal Description		Y	N		
Open Controlled Incineration Area	1	T03	350 gal.	A	/	/	916000-Sodium in Mineral Oil, 270490-Contaminated Soil, 910620-Isopropyl Alcohol, 910070-Hexane, 109640-Methanol & Water	None		X	
(Surface) Tank Storage/Processing "Fouled Xylene Tank"	2	T01	42000 gal.	A	/	/	916350-Xylene with Solid Polypropylene	None		X	
Container Storage Area	3	S01	35750 gal. 650 drums	A	/	/	914740-Ignitable Wastes, 181510-Hydrocarbon Contaminated Absorbent, 910070-Hexane, 949510-Titanium Trichloride in White Mineral Oil, 919150-Laboratory Solvents, 970020-Chromate Bearing Solids, 111050-Esters, Organic (high boiling), 910010-Heptane, 910620-Isopropyl Alcohol, 155260-Hexane, Isopropanol & Polypropylene Solids	Carbon Disulfide, Methylene Chloride, Chromium & Compounds		X	

TABLE VIII-2--HAZARDOUS WASTE MANAGEMENT FACILITY UNITS

Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)	Wastes Managed in the Facility Unit		Release Y	Release N	Comments
					Waste Code or Verbal Description	Constituents listed in Appendix VIII 40 CFR 261 contained in the waste			
Container Storage Area	3				916350-Xylene with Polypropylene Solids,				
"Drum Storage Area" (continued)	(cont.)				970260-Ash of Sodium in Mineral Oil,				
					110490-Lubricating Oil,				
					270960-Dessicant,				
					179740-Dry Paint,				
					280250-Roofing Pitch,				
					152310-Oil Sludge,				
					180440-Grease				
Thermal Processing Unit	4	T04	75000 gal. 40000 lb/hr	A / / 76 12	380380-Polypropylene Wastes,	None		X	
"Reactor Burn Pit"				I / / 76 12	949510-Titanium Trichloride (60%) in White Mineral Oil,				
				C / / 76 12	111050-Esters, Organic (High Boiling),				
					910010-Heptane,				
					910620-Isopropyl Alcohol,				
					910070-Hexane,				
					916000-Sodium in Mineral Oil				
(Surface) Tank Storage	5	S02	8400 gal.	A / / 76 12	910490-Lubricating Oil	None		X	
"Slop Oil Tank"				I / / 76 12	with Hexane,				
				C / / 76 12	110490-Lubricating Oil				

TABLE VIII-2-HAZARDOUS WASTE MANAGEMENT FACILITY UNITS

Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)	Wastes Managed in the Facility Unit		Release Y N	Comments
					Waste Code or Verbal Description	Constituents listed in Appendix VIII 40 CFR 261 contained in the waste		
(Surface) Tank Processing "Peroxide Neutralization Tank"	6	T01	550 gal.	A / / 78 10	916360-Peroxide, Organic, Neutralized with Caustic / Hexane	None	X	
(Surface) Tank Processing "Fouled Naphtha/ Xylene Tank"	8	T01	17640 gal.	A / / 88 1	950970-Naphtha Sludge	None	X	
				C / / 85 4				
(Surface) Tank Processing "Fouled Naphtha/ Xylene Tank"	8	T01	17640 gal.	A / / 88 1	916350-Xylene with Polyethylene	None	X	Re-opened Jan. 88
				C / / 88 1				
Container Storage Area "Luwa Pan Area"	1	S01	1650 gal.	A / / 82 3	949510-Titanium Trichloride in White Mineral Oil, 148870-Titanium Tetrachloride in White Mineral Oil	None	X	
				C / / 82 3				

TABLE VIII-1A-- SOLID WASTE MANAGEMENT FACILITY UNITS

Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)	Wastes Managed in the Facility Unit		Release Y N	Comments
					Waste Code or Verbal Description	Constituents listed in Appendix VIII 40 CFR 261 contained in the waste		
(Surface) Tank	7	T01	2000 gal.	A / / 77 11	149820 - Oil & Water	None	X	
Processing					Sludge			
Oil/Water Separator				C / /				
Skimming Basin	A	D83	270000 gal.	A / / 76 12	Uncontaminated Storm	None	X	
				I / /	Run-off Water			
				C / /				
Clarifier	B	T01	3,150 gal.	A / / 76 12	Uncontaminated Storm	None	X	
				I / /	Run-off Water			
				C / /				
Storm Water Retention Pond	C	T04	5 MM gal.	A / / 76 12	Uncontaminated Storm	None	X	
				I / /	Run-off Water			
				C / /				

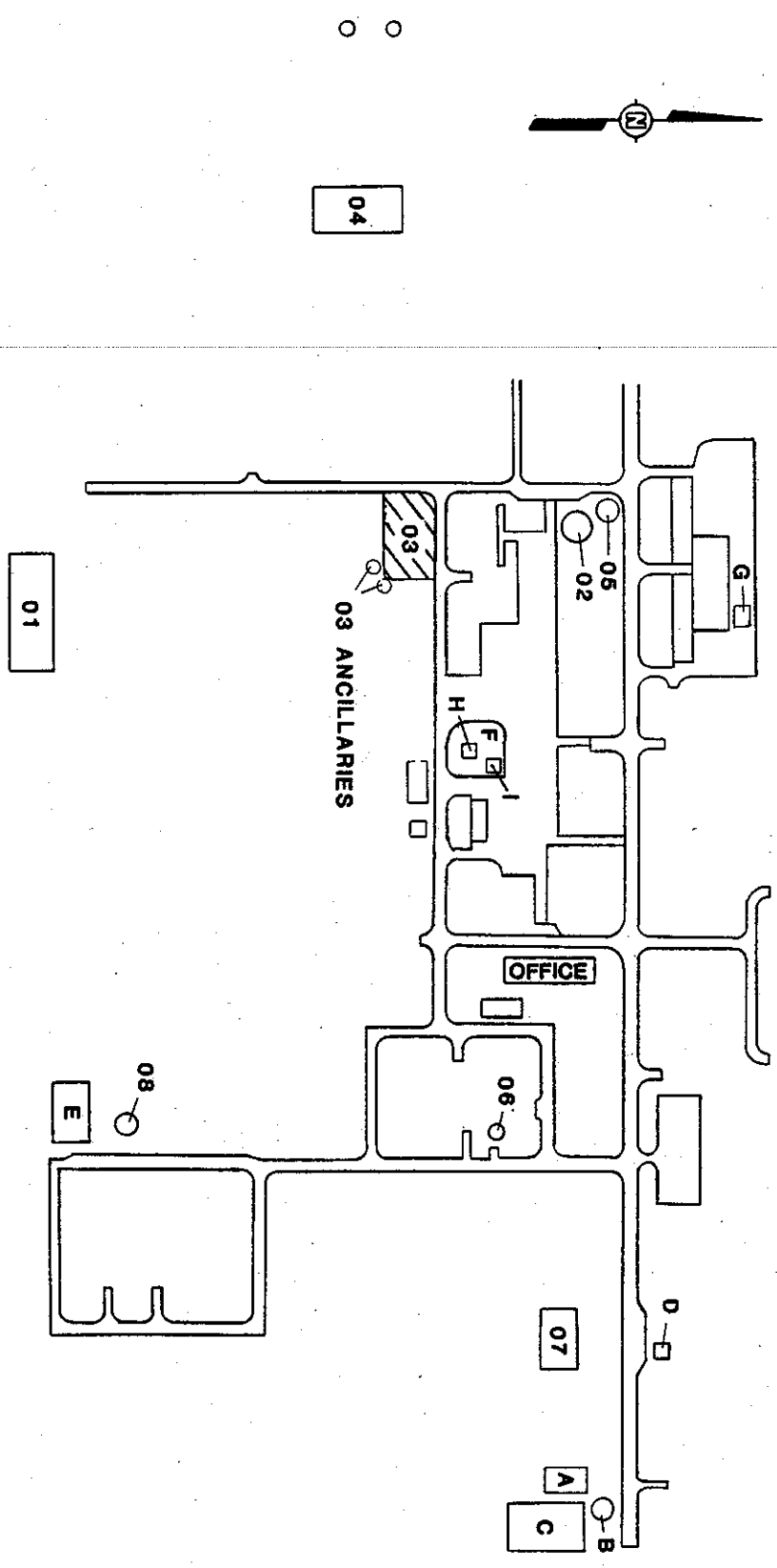
TABLE VIII-1A-- SOLID WASTE MANAGEMENT FACILITY UNITS

Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)	Wastes Managed in the Facility Unit		Release Y N	Comments
					Waste Code or Verbal Description	Constituents listed in Appendix VIII 40 CFR 261 contained in the waste		
Fuel Oil Collection Pit	D	T01	4700 gal.	A / /	149820-Oil & Water Sludge	None	X	To be closed
				I / / 79				
				C / /				
Polyethylene Satellite Storage Area	E	S01	5500 gal.	A / / 88	110490-Oil, Lubricating	None	X	
				I / /				
				C / /				
Polypropylene Satellite Storage Area	F	S01	2200 gal.	A / / 81	110490-Oil, Lubricating	None	X	
				I / /				
				C / /				
Underground Storage Tank	G	T01	375 gal.	A / / 76	110490-Oil, Lubricating	None	X	
				I / /				
				C / /				

TABLE VIII-1A-- SOLID WASTE MANAGEMENT FACILITY UNITS

Verbal Description	Facil. No. (1)	Process Code (2)	Capacity Unit of Measure (3)	Status, Date and Years in Service (4)	Wastes Managed in the Facility Unit		Release Y N	Comments
					Waste Code or Verbal Description	Constituents listed in Appendix VIII 40 CFR 261 contained in the waste		
Container Storage Area	H	S01	60 cubic yards	A / /	180970-Atactic Polypro-	None	X	
"Atactic Polypropylene Dumpster"				C / / 80 4	ylene			

DRAWN BY	CR	CHECKED BY	10/24/96	DRAWING NUMBER	446353-A1
10-24-88		APPROVED BY	10/25/92		

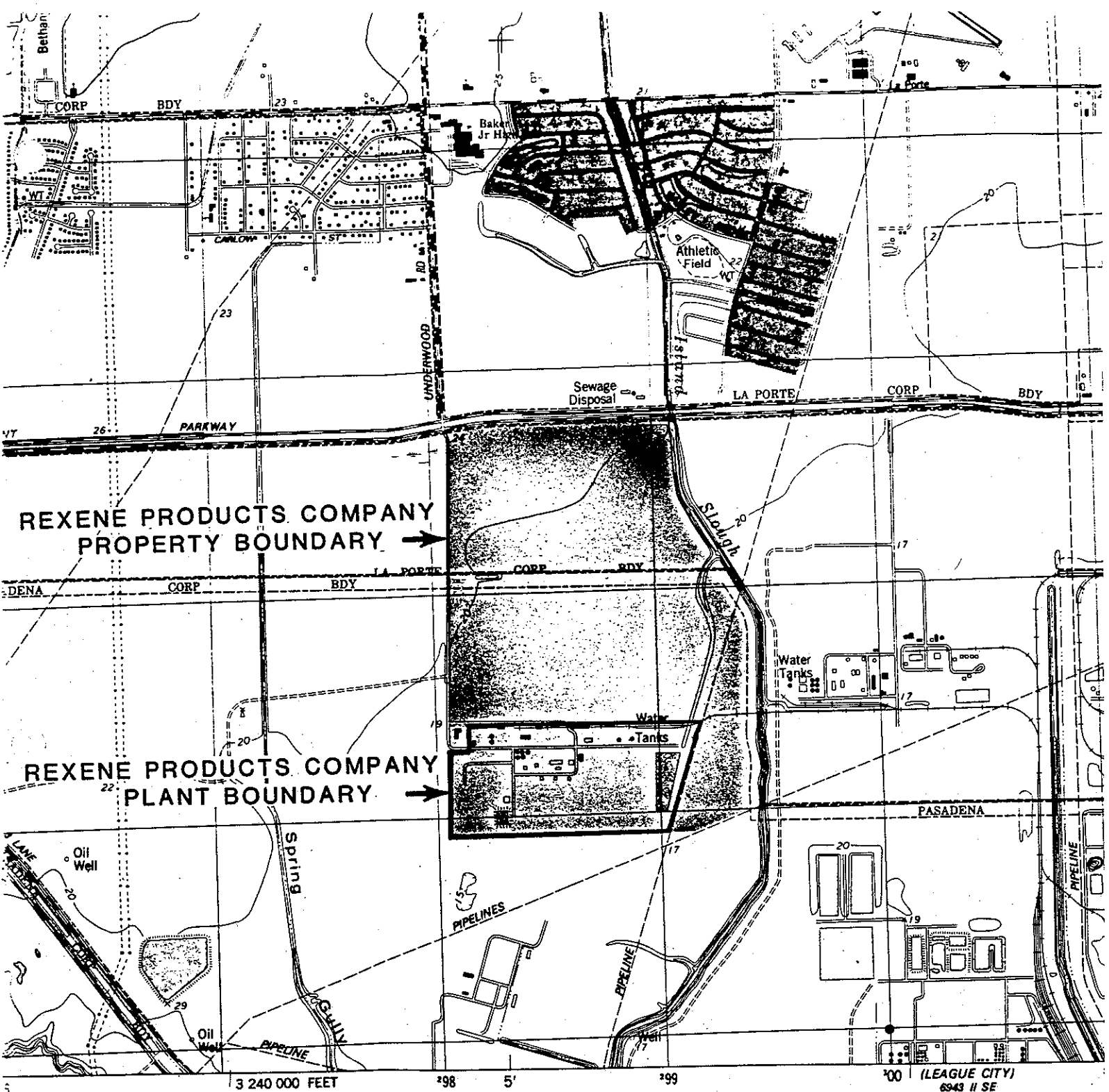


NOTE: SEE FACILITY NUMBER COLUMN ON TABLES VIII-1A AND VIII-2 FOR DESCRIPTION OF NUMERICAL AND ALPHABETICAL CODES.

FACILITY LOCATION MAP
BAYPORT PLANT
PREPARED FOR
REXENE PRODUCTS COMPANY
PASADENA, TEXAS

© 1984 IT CORPORATION
ALL COPYRIGHTS RESERVED
Do Not Scale This Drawing





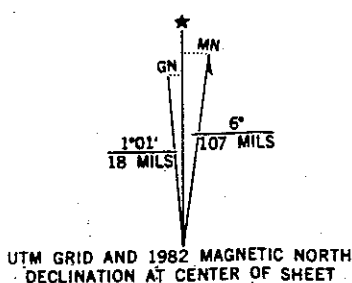
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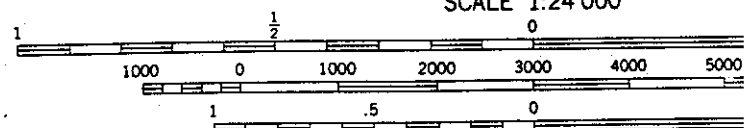
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UTM GRID AND 1982 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



SCALE 1:24 000

CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 192
DEPTH CURVES AND SOUNDINGS IN FEET-GULF COAST LOW
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN
THE MEAN RANGE OF TIDE IS NEGLIGIBLE

A portion of this map lies within a subsidence area
Contouring based on 1973 adjustment of vertical control

Water stages in this area vary with meteorological conditions
Approximate limits of occasional inundation shown by dashed blue lines
Where mean high water is undetermined for lack of visual evidence
Dotted blue lines indicate the approximate limits of low water

There may be private inholdings within the boundaries of
the National or State reservations shown on this map

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 8021
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS A

I, Lavon N. Anderson, Executive Vice President,
(Name) Manufacturing/Technical
(Title)

certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of civil penalty and criminal fines.

Signature: [Signature] Date: November 4, 1988

TO BE COMPLETED BY THE APPLICANT IF THE APPLICATION IS SIGNED BY AN AGENT FOR THE APPLICANT.

I _____ hereby designate _____
(Print or Type Name) (Print or Type Name)

as my agent and hereby authorize said agent to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Water Commission in conjunction with this request for a Texas Water Code or Texas Solid Waste disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my agent in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Printed or Typed Name of Applicant
or Principal Executive Officer

Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

SUBSCRIBED AND SWORN to before me by the said

Lavon N. Anderson on this 4th day of November, 19 88

My commission expires on the 5th day of October, 19 90



NITA SWEEDEN
Notary Public, State of Texas
My Commission Expires 10-5-90

[Signature]
Notary Public in and for

Ector County, Texas

I, Lavon N. Anderson
(Name)

Executive Vice President,
Manufacturing/Technical
(Title)

certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware there are significant penalties for submitting false information, including the possibility of civil penalty and criminal fines.

Signature: *Lavon N. Anderson*

November 4, 1988
Date:

TO BE COMPLETED BY THE APPLICANT IF THE APPLICATION IS SIGNED BY AN AGENT FOR THE APPLICANT.

I _____ hereby designate _____
(Print or Type Name) (Print or Type Name)

as my agent and hereby authorize said agent to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Water Commission in conjunction with this request for a Texas Water Code or Texas Solid Waste disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my agent in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Printed or Typed Name of Applicant
or Principal Executive Officer

Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

SUBSCRIBED AND SWORN to before me by the said

Lavon N. Anderson on this 4th day of November, 1988

My commission expires on the 5th day of October, 1990



NITA SWEEDEN
Notary Public, State of Texas
My Commission Expires 10-5-90

Nita Sweeden
Notary Public in and for

Ector County, Texas

ADJACENT LANDOWNERS

El Paso Polyolefins - Bayport Rexene Plant

- ① Housing Development - Information to be supplied later.
- ② ATLANTIC RICHFIELD COMPANY (ARCO)
3500 Entex Bldg.
1200 Milam
Houston, Texas 77002
- ③ THE QUAKER OATS COMPANY
P. O. Box 3514
Chicago, Illinois 60654
- ④ CELANESE CHEMICAL COMPANY, INC.
1250 W. Mockingbird Lane
Dallas, Texas 75247
- ⑤ ICI AMERICAS, INC.
New Murphy Road
Wilmington, Delaware 19897
- ⑥ FRIENDSWOOD DEVELOPMENT COMPANY
P. O. Box 2180
Houston, Texas 77001
- ⑦ An oil field exclusion in the industrial property dedicated to the Bayport Complex.

El Paso Products Co.-El Paso Polyoctylene-Bayport Rexene Plant

A STOCK COMPANY
HOME OFFICE - RICHMOND, VIRGINIAAttached to and made a part of Lawyers Title Insurance Corporation
Owner's Policy P-699-738
Type of Policy or NumberEXHIBIT "A"TRACT 1:

Being a tract or parcel of land containing 509.2839 acres located in the William M. Jones Survey, A-482 and the George B. McKinstry League, A-47, Harris County, Texas; and being more particularly described by metes and bounds as follows (all bearings referenced to the Texas Coordinate System, South Central Zone):

BEGINNING at Rod 2764, said rod marking the intersection of the most westerly line of a 230.00 foot wide Harris County Flood District Fee Strip as recorded in Volume 8260, Page 124, Deed Records, Harris County, Texas the the most southerly line of Fairmont Parkway (250.00 feet wide);

THENCE S 07°15'39" E, (previously called S 05°20'00" E), with the westerly line of said 230 foot wide Harris County Flood Control Fee Strip, 1124.97 feet to Rod 2765 for a corner;

THENCE continuing with said westerly line, S 34°59'39" E, (previously called S 33°04'00" E), 1266.82 feet to Rod 2766 for a corner;

THENCE leaving said westerly line, S 55°00'21" W, 300.00 feet to Rod 2767 for a corner;

THENCE S 34°59'39" E, at 89.72 feet pass the common line of the aforementioned William M. Jones Survey and the George B. McKinstry League, and continuing for a total distance of 626.37 feet to Rod 2768 for a corner in the most westerly line of a 100.00 foot wide corridor;

THENCE with the westerly line of said 100.00 foot wide corridor, S 15°06'49" W, 3186.99 feet to Rod 2769 for a corner, said rod being in the easterly boundary of that certain Clear Lake City Water Authority tract described in Volume 5112, Page 59, Deed Records, Harris County, Texas;

THENCE with said easterly boundary S 88°03'59" W, (previously called West), 3289.15 feet to Rod 2770 for a corner;

THENCE continuing with said easterly boundary N 01°56'03" W, (previously called North), at 3506.30 feet pass the aforementioned common line of the William M. Jones Survey and the George B. McKinstry League and continuing for a total distance of 5813.56 feet to Rod 2762 for a corner in the aforementioned southerly line of Fairmont Parkway;

THENCE continuing with said easterly boundary N 01°56'03" W, 124.52 feet to a point for corner;

THENCE leaving said easterly boundary N 86°49'59" E, 3301.86 feet to a point for corner in the aforementioned westerly line of a 230.00 foot wide Harris County Flood Control Drainage Fee Strip;

THENCE with said westerly line, S 07°15'39" E, 41.65 feet to the POINT OF BEGINNING and containing 509.2839 acres of land including 3.7096 acres now in Fairmont Parkway.

Lawyers Title Insurance Corporation

Countersigned at HOUSTON, TEXAS

this 10th day of MAY, 1974

LAWYERS TITLE COMPANY OF HOUSTON



ATTEST:

Guy V. Scott, President.

Secretary.

Authorized Officer or Agent

See next page for description of land currently occupied by Rexene Plant.

A tract of land containing 135.21 acres, more or less, located in the George B. McKinstry League, A-47, Harris County, Texas being more particularly described as follows (All hearings referenced to the Texas Coordinate System, South Central Zone):

Beginning at the Southwest corner of that certain Tract one described in Deed dated March 14, 1974 and recorded in Film code 103-11-868, which corner is called Rod 2770;

Thence $N01^{\circ} 56' 03''$ W a distance of 1650 feet;

Thence $N88^{\circ} 03' 59''$ E a distance of 3850 feet more or less to the East line of said Tract one;

Thence $S15^{\circ} 06' 49''$ W a distance of 1780 feet more or less to the South line of said Tract one;

Thence $S88^{\circ} 03' 59''$ W 3289 feet the point of the beginning.

ATTACHMENTS D

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Waste Xylene w/Propylene Solids

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 003

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

<input type="checkbox"/> Lagoon/Pond (unlined)	<input type="checkbox"/> Landfarm
<input type="checkbox"/> Lagoon/Pond (lined)	<input type="checkbox"/> Landspreading Area
<input type="checkbox"/> Basin (earthen, above-grade lined)	<input type="checkbox"/> Spray Irrigation Area
<input type="checkbox"/> Basin (earthen, above-grade unlined)	<input type="checkbox"/> Flood Irrigation Area
<input type="checkbox"/> Basin (earthen, below-grade lined)	<input type="checkbox"/> Septic Tank/Drain Field
<input type="checkbox"/> Basin (earthen, below-grade unlined)	<input type="checkbox"/> Injection Well
<input type="checkbox"/> Basin (concrete, above-grade lined)	<input checked="" type="checkbox"/> Tank (surface storage)
<input type="checkbox"/> Basin (concrete, above-grade unlined)	<input type="checkbox"/> Tank (sub-surface storage)
<input type="checkbox"/> Basin (concrete, below-grade lined)	<input type="checkbox"/> Tank (surface processing)
<input type="checkbox"/> Basin (concrete, below-grade unlined)	<input type="checkbox"/> Tank (sub-surface processing)
<input type="checkbox"/> Basin (other)	<input type="checkbox"/> Tank (other)
<input type="checkbox"/> Pit (lined)	<input type="checkbox"/> Drum Storage Area
<input type="checkbox"/> Pit (unlined)	<input type="checkbox"/> Other Container Storage Area
<input type="checkbox"/> Incinerator	<input type="checkbox"/> Other Container Storage Area
<input type="checkbox"/> Open Controlled Incineration Area	<input type="checkbox"/> Other Container Storage Area (specify type of of container _____)
<input type="checkbox"/> Boiler (energy-producing)	<input type="checkbox"/> Waste Pile Storage Area
<input type="checkbox"/> Landfill (sanitary)	<input checked="" type="checkbox"/> Other (specify <u>Transported off-site</u> <u>in bulk.</u>)
<input type="checkbox"/> Landfill (surface, open)	
<input type="checkbox"/> Landfill (other)	

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Waste IPA/Hexane Solvent 2/PP Fines

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 012

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|--|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input checked="" type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>Transported off-site</u> |
| <input type="checkbox"/> Landfill (surface, open) | <u>in bulk</u>) |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Waste $TiCl_3$ in Mineral Oil

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 013

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|---|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input checked="" type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>transported off-site</u>
<u>in drums</u>) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Waste Sodium In Mineral Oil

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 015

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|---|---|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input checked="" type="checkbox"/> Basin (concrete, above-grade lined) | <input type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input checked="" type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input checked="" type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>transported off-site in</u>
<u>Bio San Stream to GCWDA</u>) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Soil, Chromate contaminated

Process (see last column in Table III-1) Cooling Tower

TDWR Sequence Number of Waste (if assigned) 027

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|--|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input checked="" type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>Transported off-site</u>
<u>in drums.</u>) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Waste Heptane

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 028

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|---|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input checked="" type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container. _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>Transported off-site</u>
in bulk _____) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

Verbal Description of Waste Xylene Saturated Polymer

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 029

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|--|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>transported off-site in</u>
<u>Gaylord cartons on trucks.</u>) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

Table III-2 Hazardous Waste Management Facility Component Summary Sheet

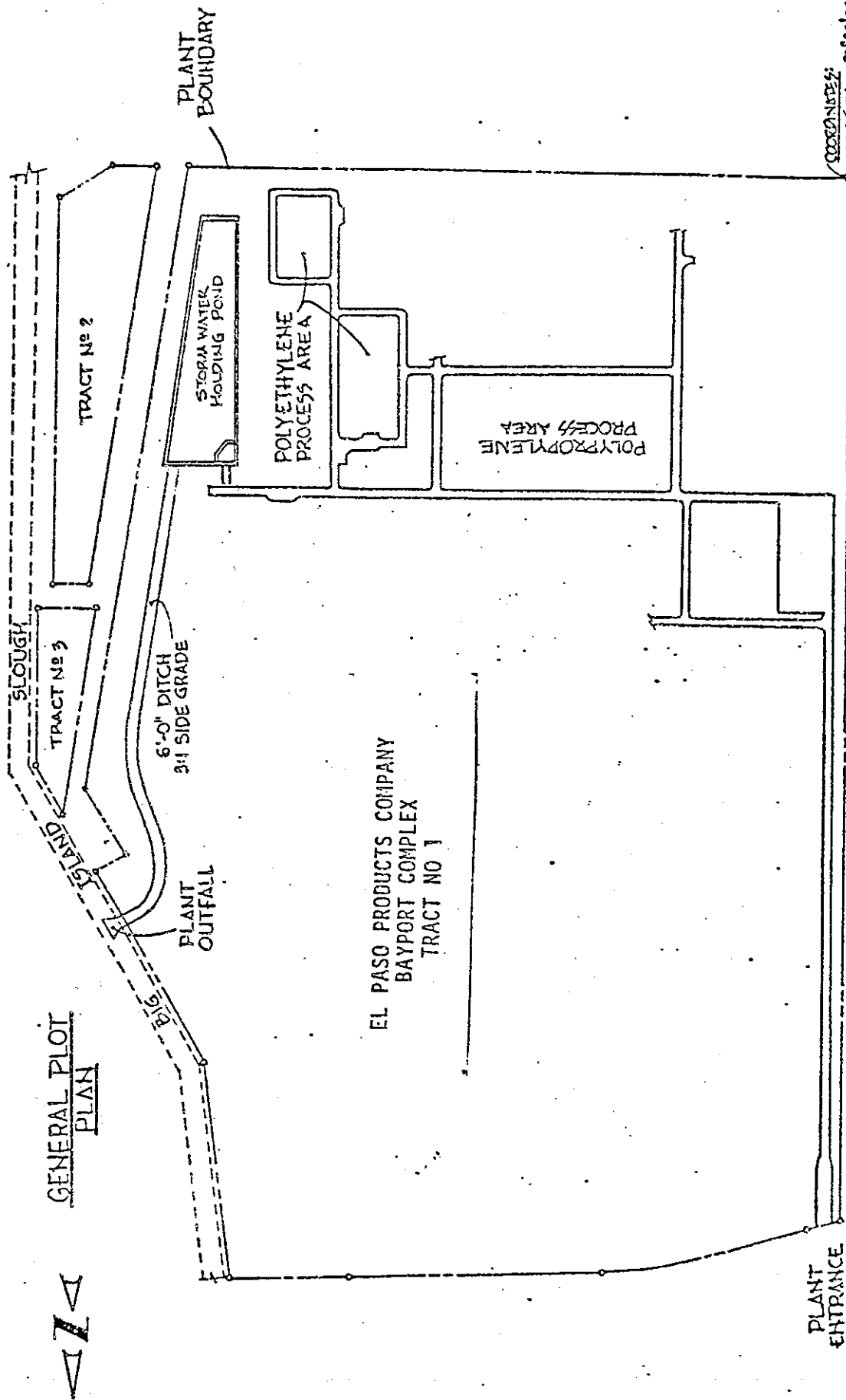
Verbal Description of Waste Organic Peroxide/Heptane in Vermiculite

Process (see last column in Table III-1) 2821 - Polypropylene

TDWR Sequence Number of Waste (if assigned) 030

Indicate the facility components used for storage/processing/disposal of the above-specified waste by entering the number of such facility components by which this waste is managed.

- | | |
|--|---|
| <input type="checkbox"/> Lagoon/Pond (unlined) | <input type="checkbox"/> Landfarm |
| <input type="checkbox"/> Lagoon/Pond (lined) | <input type="checkbox"/> Landspreading Area |
| <input type="checkbox"/> Basin (earthen, above-grade lined) | <input type="checkbox"/> Spray Irrigation Area |
| <input type="checkbox"/> Basin (earthen, above-grade unlined) | <input type="checkbox"/> Flood Irrigation Area |
| <input type="checkbox"/> Basin (earthen, below-grade lined) | <input type="checkbox"/> Septic Tank/Drain Field |
| <input type="checkbox"/> Basin (earthen, below-grade unlined) | <input type="checkbox"/> Injection Well |
| <input type="checkbox"/> Basin (concrete, above-grade lined) | <input type="checkbox"/> Tank (surface storage) |
| <input type="checkbox"/> Basin (concrete, above-grade unlined) | <input type="checkbox"/> Tank (sub-surface storage) |
| <input type="checkbox"/> Basin (concrete, below-grade lined) | <input type="checkbox"/> Tank (surface processing) |
| <input type="checkbox"/> Basin (concrete, below-grade unlined) | <input type="checkbox"/> Tank (sub-surface processing) |
| <input type="checkbox"/> Basin (other) | <input type="checkbox"/> Tank (other) |
| <input type="checkbox"/> Pit (lined) | <input checked="" type="checkbox"/> Drum Storage Area |
| <input type="checkbox"/> Pit (unlined) | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Incinerator | <input type="checkbox"/> Other Container Storage Area |
| <input type="checkbox"/> Open Controlled Incineration Area | <input type="checkbox"/> Other Container Storage Area (specify type of
of container _____) |
| <input type="checkbox"/> Boiler (energy-producing) | <input type="checkbox"/> Waste Pile Storage Area |
| <input type="checkbox"/> Landfill (sanitary) | <input checked="" type="checkbox"/> Other (specify <u>Transported off-site</u>
<u>in drums</u>) |
| <input type="checkbox"/> Landfill (surface, open) | |
| <input type="checkbox"/> Landfill (other) | |

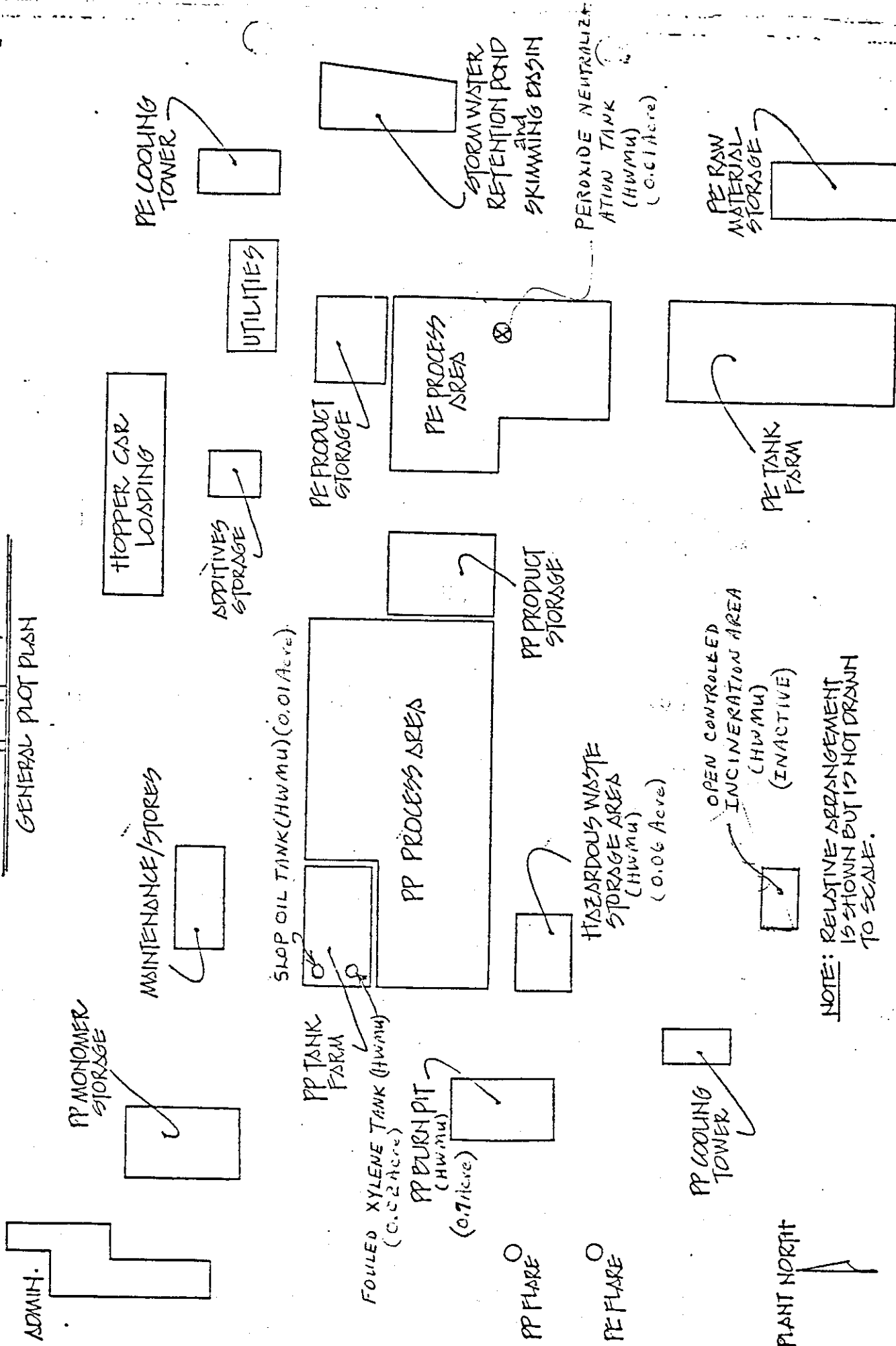


DRAWN BY: T.R. VEADEL

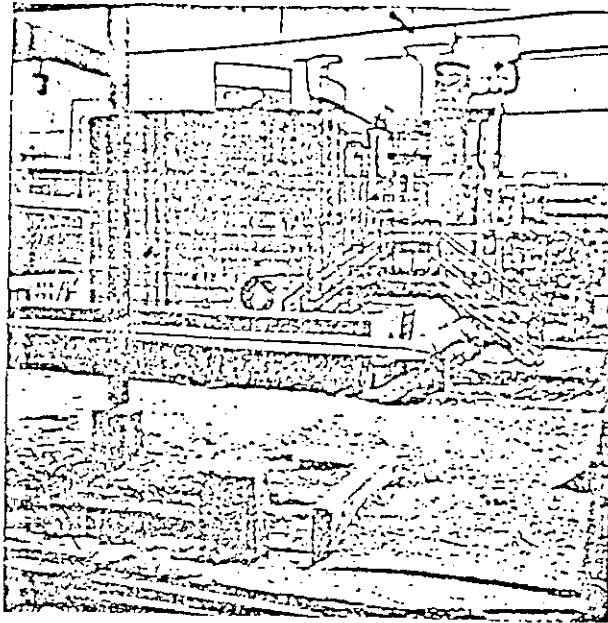
EL PASO POLYOLEFINS CO. EXPORT PLANT

ATTACHMENT E-3

GENERAL LAYOUT PLAN



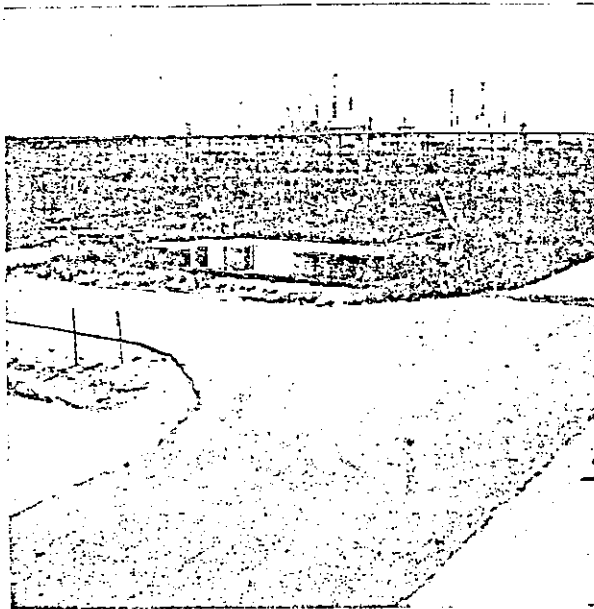
NOTE: RELATIVE ARRANGEMENT IS SHOWN BUT IS NOT DRAWN TO SCALE.



PROCESS DESCRIPTION

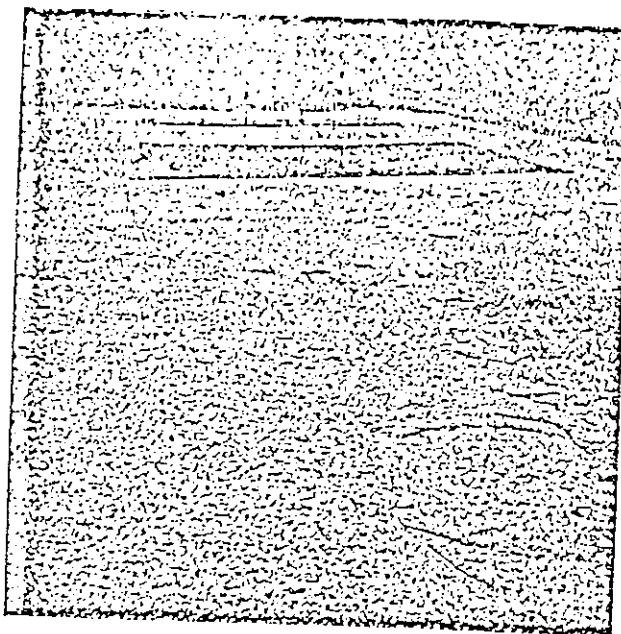
Xylene, containing dissolved polypropylene from process cleaning operations, is circulated through a reboiler, flash tank, and condenser arrangement to recover xylene for reuse (overheads) while concentrating the polymer in the fouled xylene (bottoms) to approximately 8%. The fouled xylene is pumped into tank 1TK-1903, where it is stored until disposed of off-site.

DRUM STORAGE AREA



PROCESS DESCRIPTION

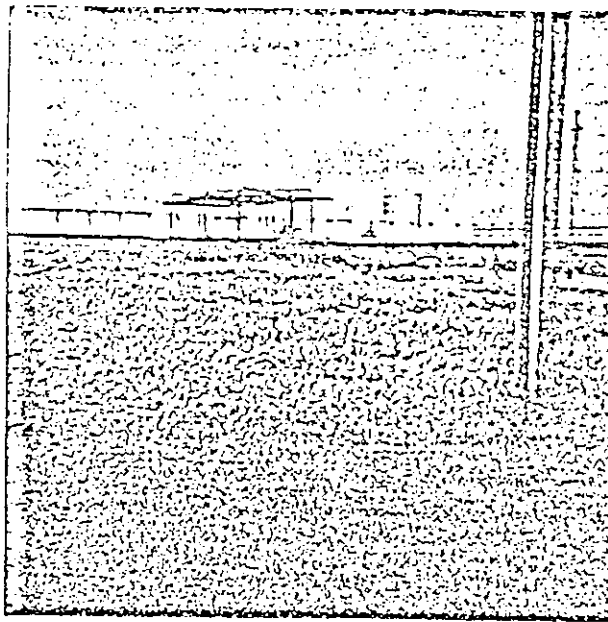
SEVERAL hazardous wastes are stored temporarily on the Hazardous Waste Drum Storage Area. This is a concrete slab of 40 ft. by 60 ft. with a 4" high curb. The slab drains to a 2,000 gallon oil/water separator and to a 2,000 gallon sump. The slab is elevated 9" above grade. Drums of Waste Titanium Chloride in Mineral Oil, Waste Heptane and Chromate Contaminated Soil. When neutralized Organic Peroxide in caustic is generated it will be stored here before off-site disposal.



PROCESS DESCRIPTION

In the past small amounts of sodium, resulting from sodium storage tank cleanouts, were collected in drums containing mineral oil. The drums were then transported to an enclosed storage area via fork truck prior to on-site incineration. This waste is no longer generated.

REACTOR BURN PIT



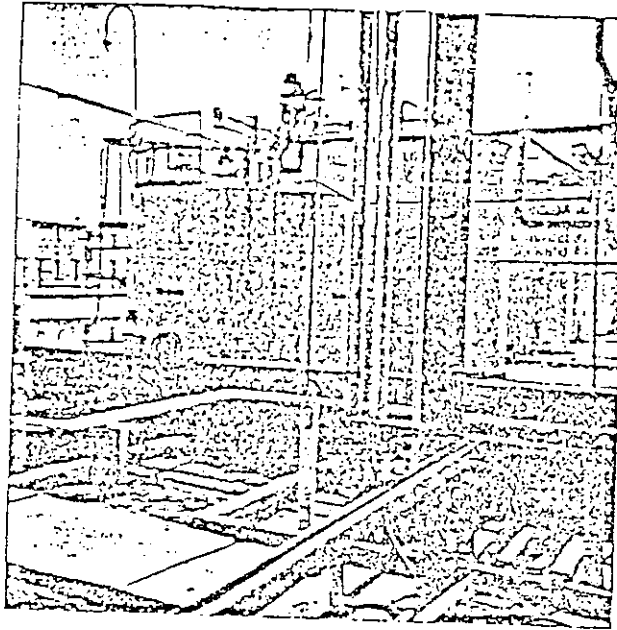
PROCESS DESCRIPTION

The Reactor Burn Pit is used for emergency dumping of the reactor. It is a 75,000 gallon capacity concrete lined pit equipped with bath steam and water quenching sprays. Rapid water recirculation rate is also provided at a 40,000 lbs. per hour rate.

Aluminum alkyls, pyrophoric cocatalysts used in the polypropylene reaction, are flushed from process equipment with a solvent, to a ground flare where it spontaneously ignites and burns in the presence of air.

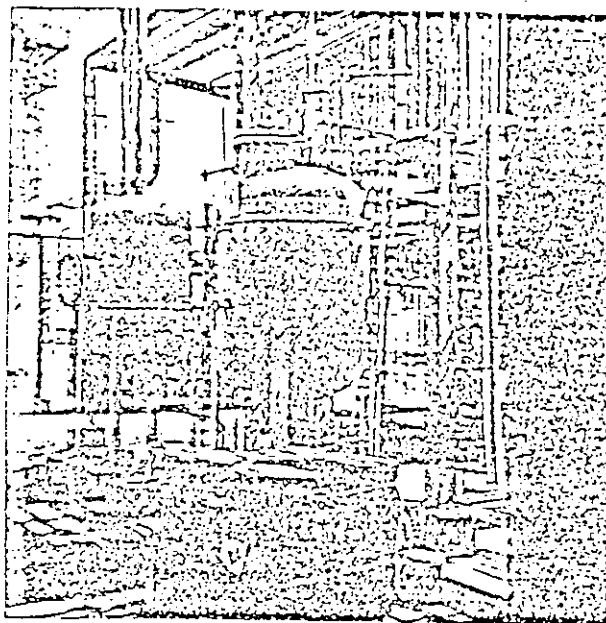
The waste water from this unit are sent with the "Bio San" stream to Gulf Coast Waste Disposal Authority's local plant for ultimate treatment and disposal.

(TWQ3 Code: 110490)



PROCESS DESCRIPTION

Liquids pumped from the polypropylene flare knock-out vessel and oils separated from the plant waste water stream are pumped into tank ITK-0401 for storage prior to off-site disposal.

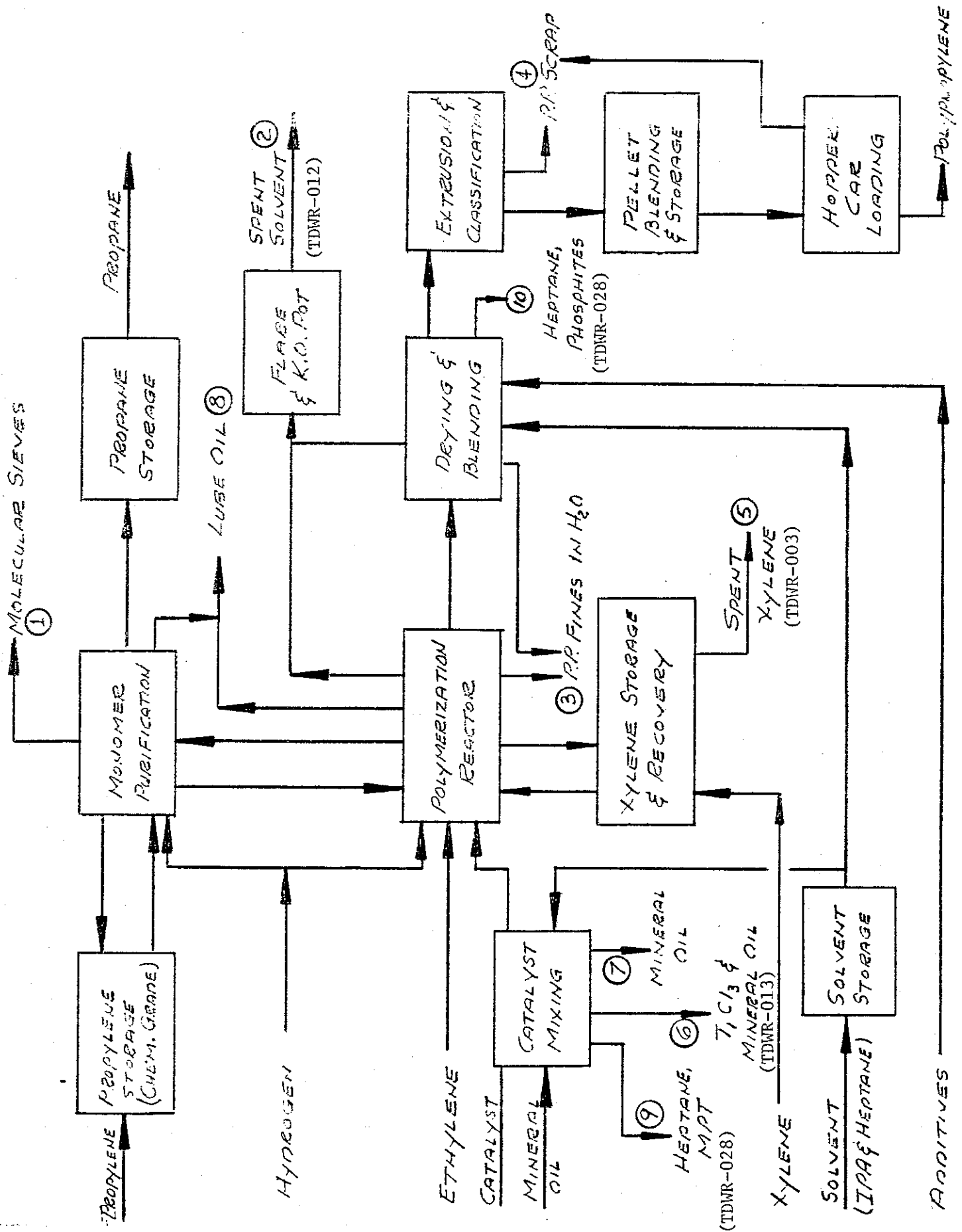


PROCESS DESCRIPTION

The Peroxide Neutralization Tank is no longer used in the Polyethylene Process. It may be used in the future to dispose of Organic Peroxides from the controlled rheology step in the Polypropylene process. Organic Peroxides flushed from Polypropylene process equipment, will be neutralized in vessel IV-2304 with a Sodium Hydroxide and water solution to reduce the active Oxygen in the Peroxide to less than 2%. The mixture is stored in this vessel (IV-2304) until disposed of off-site.

FIGURE 2 - BLOCK DIAGRAM
 PRODUCT PROCESS - POLYPROPYLENE
 CHEMICAL INTERMEDIATES - NONE
 BYPRODUCTS - PROPANE (FUEL)

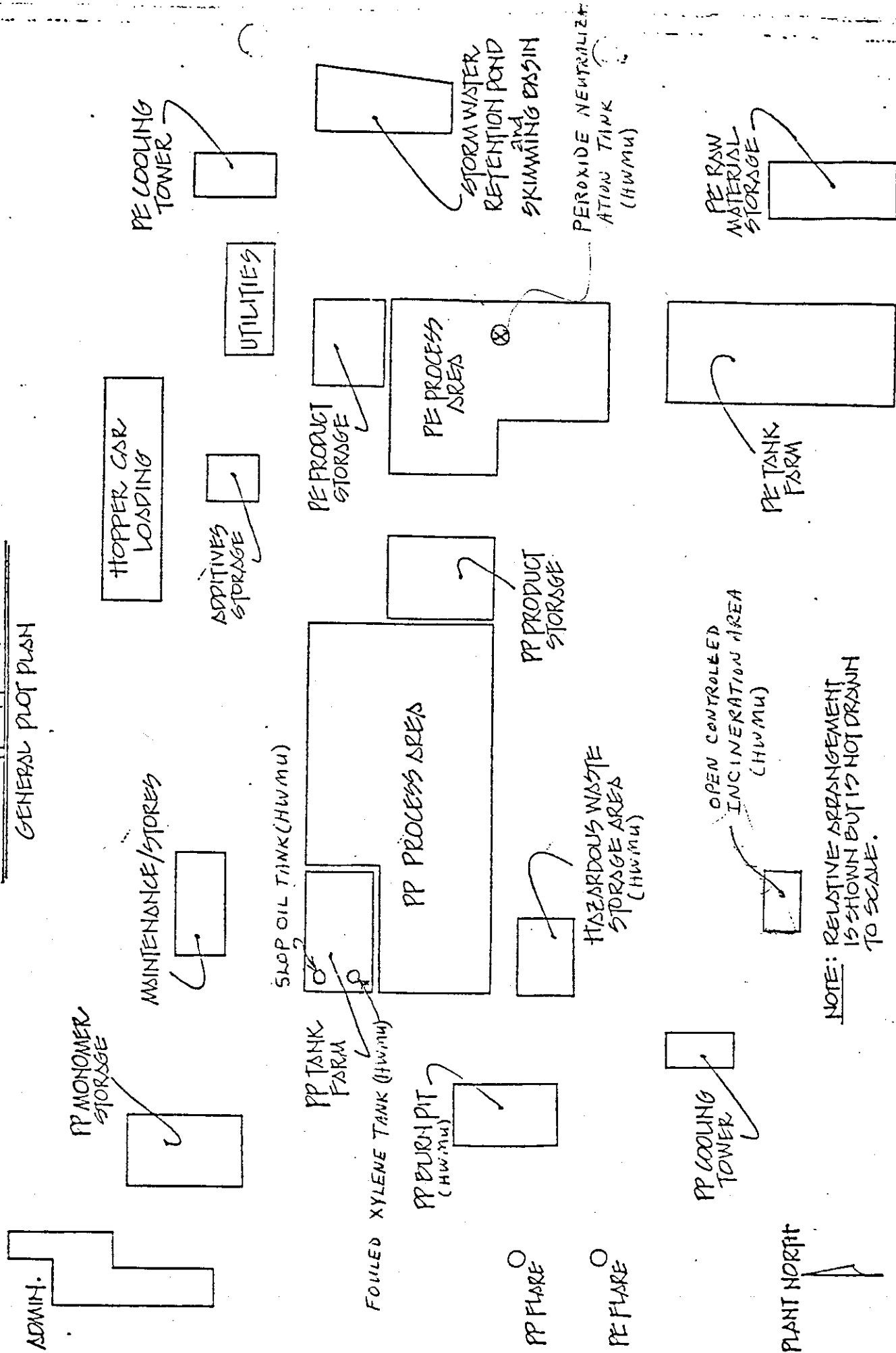
ATTACHMENT G-1



EL PASO POLYOLEFINS CO. BAYPORT PLANT

ATTACHMENT G-2

GENERAL LAYOUT PLAN



NOTE: RELATIVE ARRANGEMENT IS SHOWN BUT IS NOT DRAWN TO SCALE.

ATTACHMENT G-3

PROCESS DESCRIPTION

The Bayport Polyolefins plant of the El Paso Products Company manufactures Polypropylene. Until June, 1982, this plant also manufactured low density Polyethylene. Attachment G-1 shows a block flow diagram of the Polypropylene plant as it now operates. The section of the Polypropylene plant known as deashing has not been operated since 1981.

Attachment G-2 shows an approximate layout of the plant site including polypropylene, polyethylene, and utilities. The six hazardous waste management units (HWMU) are also shown on this layout.

Attachment G-1 shows the raw materials, catalysts and additives being charged to the Polypropylene plant and shows the products, by-products, and wastes generated by the process. All hazardous wastes are now disposed off-site via permitted disposers. The only waste of any class recovered on-site is the spent molecular sieves, which are regenerated and reused. All hazardous and Class I industrial wastes are manifested to the ultimate disposal site.

TDWR
003

The waste Xylene with Polypropylene solids is generated in the Xylene Storage and Recovery Area. The Xylene is used in the Polymerization Reactor Area and is recycled until the Polypropylene solids content builds up to about 8% concentration. The waste Xylene is then collected in the waste

Xylene Tank. After a sufficient quantity of spent Xylene is generated, a permitted hazardous waste hauler transports the hazardous waste material in bulk to a permitted hazardous waste disposer for ultimate disposal.

TDWR
015

The Waste Sodium in Mineral Oil has not been generated since the deashing section was shutdown. There is some material remaining at the plant site in the feed tank. It is planned to clean the feed tank and dispose of this material off-site. At the time the Part A was submitted, this material was being treated on-site before disposal. Sodium is stored in Mineral Oil to prevent reaction with water or moisture in the air. The material was burned in the open incineration area and the residue disposed.

TDWR
013

The waste Titanium Trichloride ($TiCl_3$) in Mineral Oil is generated in the Catalyst Mixing Area. This material is collected in drums and transported to the Hazardous Waste drum storage area. It is ultimately transported with other drummed wastes to a permitted hazardous waste disposer. This material is stored under oil because it is reactive with the moisture in the air. This material is disposed off-site by permitted disposers.

TDWR
012

The waste Isopropyl Alcohol (IPA) and Heptane Solvent was collected in the Flare Knock Out (KO) pot and transported in bulk to a permitted disposer. This waste has not been generated since the deashing section was shutdown in 1981. However, there is still condensate collected in the Flare Knock Out vessel and pumped to the Slop Oil Tank. This condensate is greatly reduced in volume and contains no IPA since the deashing section was shutdown. The waste in the Slop Oil Tank is considered hazardous due to

ignitability of Xylene and Heptane. It is disposed off-site in bulk.

TDWR
028

The waste Heptane is actually generated in two places. When the electron donor feed tank is cleaned out in the Catalyst Mix Area, spent Heptane containing a high boiling organic ester is generated. A spent Heptane containing Phosphites is generated in the drying and blending area. Both of these wastes are collected in drums and transported to the Hazardous Waste drum storage area. These drums are ultimately transported off-site with other drums for disposal.

TDWR
029

The Xylene Saturated Polymer is not a continuously produced waste. It is the solid chunks of Polypropylene which are washed out of process equipment. This is collected in drums and moved to the Hazardous Waste Drum Storage Area until it can be transported to a permitted disposer.

TDWR
030

The Organic Peroxide in Vermiculite is not yet generated, but may be beginning next year. This is part of a new procedure called controlled reology of Polypropylene. This was the original plan for disposing of Organic Peroxide wastes from controlled rheology. An alternative is to neutralize these organic peroxides in the Peroxide Neutralization Tank previously housed in the Polyethylene Plant. This plan will be clarified as soon as possible next year.

All wastes transported off-site in bulk are transported and handled in closed tanks, pipes, pumps, and vacuum trucks. A-1 wastes transported off-site in drum containers are transported from process to the hazardous waste storage area via forklift trucks, and are transported off-site in drum trailer trucks of the disposers.

TDWR
027

The Chromate contaminated soil is not generated in the Polypropylene process. It is generated from infrequent spills of Chromate in the Additive Mix Area of the Cooling Tower. We do use a low Chromate treatment system. The spill contaminated soil is placed into steel drums and placed in the Hazardous Waste Drum Storage Area. It is transported off-site via truck to a permitted disposer.

ATTACHMENT H

PART A - III-B (2,4) EXPLANATION OF PAST HAZARDOUS
WASTE PROCESSING AND STORAGE ACTIVITIES

There were two activities which were practiced at the time of RCRA Part A submission:

- (1) Storage of hazardous wastes in drums in several conventional drum storage areas in the plant. No proper hazardous waste drum storage area was available at that time.
- (2) Open controlled incineration of reactive wastes to render them non-hazardous.

Since that time both of these practices have been discontinued. A properly constructed hazardous waste drum storage area was completed in 1982. The 500 drums listed as hazardous waste in the Part A were really unidentified wastes. Since that time all hazardous waste drums have been identified and moved to the new hazardous waste drum storage area. Most of the 500 drums reported to be hazardous in the RCRA Part A were identified to be non-hazardous. All of the drums determined to be hazardous wastes have been properly manifested and disposed off-site.

The Open Controlled Incineration Area was formerly used to dispose of one hazardous waste and three Class I wastes by burning to render them non-hazardous. The burning took place in a fabricated steel trough in an open area. The hazardous waste burned at that time was Sodium in Mineral Oil (TDWR Seq. No. 015). The Class I wastes burned at that time were Isopropyl Alcohol (IPA) (TDWR Seq. No. 009), Methanol and Water (TDWR Seq. No. 017), and Hexane (TDWR Seq. No. 018). This is indicated both on the Solid Waste Registration and the RCRA Part A Application for El Paso Products. Any Sodium Hydroxide residue was transferred

into the Reactor Burn Pit where neutralization occurred with residual alkyl. The neutral water was then sent to Gulf Coast Waste Disposal Authority in the plant "biosan" stream. The Opened Controlled Incineration Area was permanently shutdown in September 1982.

The Sodium in Mineral Oil is no longer used in the Polypropylene process. However, there is some material still in storage in the plant feed tank. This tank will be cleaned in the future and the waste material properly disposed. The Sodium in Mineral Oil (TDWR Seq. No. 015) will then be dropped from the Solid Waste Registration.

TEXAS WATER COMMISSION

Lowell
Apparel
new

B. J. Wynne, III, Chairman
Paul Hopkins, Commissioner
John O. Houchins, Commissioner



Allen Beinke, Executive Director
Michael E. Field, General Counsel
Brenda W. Foster, Chief Clerk

July 13, 1989

Anthony Robledo, Chief
Texas Section
Hazardous Waste Management Division
U. S. Environmental Protection Agency
Region VI - 6H-PT
1445 Ross Avenue
Dallas, Texas 75202

Re: Rexene Corporation - Pasadena
Storage/Processing
Solid Waste Registration Number 30486
EPA I. D. Number TXD020800371 *IV*

Dear Mr. Robledo:

Enclosed are revisions to the Part B hazardous waste permit application for the subject facility.

Comments should be addressed to Kyle Shelton at (512) 463-7949.

Sincerely,

Cheryl A. Wilson

Cheryl A. Wilson, Head
Reports and Information Management Unit
Hazardous and Solid Waste Division

BB:am

Enclosure

cc: Lawrence E. Pewitt, P. E., Permits, Texas Air Control Board,
6330 Highway 290 East, Austin, Texas 78723
Mark Gates, Regional Manager, Texas Water Commission Southeast
Region - Deer Park Office

JUN 23 REC'D

REXENE PRODUCTS COMPANY
CLOSURE PLAN
BAYPORT POLYOLEFINS PLANT
SECTION A-3

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INTRODUCTION

Rexene Products Company operates a facility in Pasadena, Texas which manufactures low density polyethylene and polypropylene resins. Several hazardous wastes are generated as a result of production of these two products.

Currently, Rexene has five active hazardous waste management units (HWMU). A sixth HWMU (Facility 01) previously underwent closure. Closure plans for each of the active units were prepared to comply with the closure requirements as outlined in 40 Code of Federal Regulations (CFR) Parts 264.110 through 264.116, 264.197 and 264.258.

Rexene intends to remove all waste residues, contaminated containment system components, contaminated subsoils and structures and equipment contaminated with wastes as outlined in the following closure plans. It is anticipated that the closures will take place concurrently at the time of final facility closure except for Facility 03 (Container Storage Area) which will remain open until closure has been completed on all other units. Facility 03 will receive any containerized wastes which may result from the closures of the other units. Rexene does not expect final closure of the facility until the year 2010.

FOULED XYLENE STORAGE TANK

Facility 02

Tank TK-1903

1.0 INTRODUCTION

Facility 02 is a closed-top tank used to accumulate xylene contaminated with polypropylene or polyethylene polymer. The tank was placed in service in 1976 and has a maximum design capacity of 42,000 gallons. The tank is constructed of carbon steel, is insulated and has a diameter of 21.5 feet and a height of 16.02 feet.

2.0 PROCEDURES FOR CLOSING OF FACILITY 02

The following steps will be followed during closure proceedings for Facility 02:

1. Removal of residual waste;
2. Collection of final rinsate sample;
3. Removal of visually contaminated soils;
4. Collection of soil samples; and
5. Removal of contaminated soils.

Step 1 Removal of Residual Wastes

All residual wastes will be removed by using a high power wash or another appropriate method such as a detergent or chemical wash or sandblasting. The tank will be rinsed until all signs of contamination have been removed. All rinsate will be disposed at a facility authorized to receive such waste.

Step 2 Collection of Final Rinsate Sample

Rexene will collect a sample of the final rinsate following the rinsing of the tank. The rinsate will be analyzed for the following parameters:

- ° xylene
- ° ignitability

If the rinsate analysis indicates a concentration of xylene to be less than 1 ppm and does not exhibit the characteristic of ignitability, the tank will be considered clean. Step 1 will be repeated if necessary, until these conditions are satisfied.

Step 3 Removal of Visually Contaminated Soils

Prior to soil sampling, Rexene will inspect the soils surrounding Facility 02 to determine whether there have been releases. Rexene will remove all visually contaminated soils prior to sampling the site. All contaminated soils will be disposed at a facility authorized to dispose of such waste.

Step 4 Collection of Samples Surrounding the Tank

Rexene will sample the soils surrounding the tank to ensure that all waste constituents in the soil have been removed. Four soil samples will be taken in the areas surrounding the tank where signs of visible contamination were observed. This will ensure that the soils with the highest potential for contamination are sampled. If there are no visible signs of contamination, Rexene will sample the soils on all four sides of the tank in order to cover all areas that contamination might have occurred.

The four samples will be sampled at a depth of six inches and will be analyzed for xylene. These samples will be compared to a background sample taken from an area of the plant unaffected by waste management. If all four samples exhibit constituent concentrations that are less than the background constituent concentrations, Facility 08 will be considered "clean" closed.

Step 5 Removal of Contaminated Soils

If the analysis indicates that the xylene concentration is above the background standard, the remaining contaminated soils will be removed. In the areas where contamination occurs, Rexene will remove six inches of soil. The soil will then be resampled at a depth of six inches below the initial sampling point and will be re-analyzed for xylene. This process will be repeated until all contaminated soil is removed. All contaminated soils will be disposed of at a facility authorized to receive such waste unless it is determined that all soils cannot be practically removed. At that point Rexene will place all excavated soil back in the area of the tank and will close the tank as a landfill, following the procedures in Section 3.0 of this closure plan.

A groundwater monitoring system will be installed for post closure monitoring. The system will consist of a minimum of 1 upgradient and 3 downgradient monitor wells. The location of the wells will be submitted to the TWC at the time that is determined that Facility 02 will be closed as a landfill.

The survey data of the location of the tank will be submitted to the appropriate authorities in order to deed record the area as a solid waste landfill.

3.0 CONTINGENT CLOSURE PLAN AS A LANDFILL

Rexene will close Facility 02 as a landfill, pursuant to 40 CFR Part 264.310, if all contaminated soils cannot be practically removed. The tank will be recycled or reused if possible or cut into pieces and disposed of at an authorized facility. Rexene will cover the tank area with a cap which will minimize infiltration, which in turn, will prevent the migration of contaminants into the groundwater.

4.0 CONTINGENT POST-CLOSURE CARE PLAN

Rexene will perform post-closure care at Facility 02 for a period of 30 years after final closure. The post-closure care plan addresses the following:

- ° Monitoring the closed area
- ° Inspection of the closed area
- ° Maintenance of the closed area
- ° Post-closure cost estimate.

4.1 MONITORING THE CLOSED AREA

Groundwater monitoring will be conducted on a semi-annual basis. Rexene will monitor the groundwater for xylene. The parameter(s) selected for groundwater monitoring will be submitted to the TWC at the time that it is determined that Facility 02 must be closed as a landfill.

4.2 INSPECTION OF THE CLOSED AREA

Rexene will inspect the closed area on a semi-annual basis for the condition of the cover (e.g. cracks, uneven settlement), warning signs, monitor wells (e.g. missing locks) and benchmarks.

4.3 MAINTENANCE OF THE CLOSED AREA

The following post-closure maintenance activities will be implemented in this area as necessary:

- ° Cover system maintenance
- ° Groundwater monitoring system maintenance

Cover system maintenance will include maintaining the cover, benchmarks, and warning signs. The cover, benchmarks, and warning signs will be maintained on a semi-annual basis. The cover will be inspected for evidence of degradation (cracks or gaps). Rexene will repair the cover upon observance of degradation. The benchmarks will be inspected to determine

whether they have been damaged or removed. Rexene will repair or replace any damaged or missing benchmarks and re-survey the area. Warning signs will be inspected to ensure that the signs are legible. If the signs are damaged or missing, Rexene will repair or replace the signs.

Rexene will maintain all groundwater monitoring equipment and wells in an operational state to ensure that representative groundwater samples can be collected. Maintenance of the groundwater system will include replacing missing locks, replacing defective or broken surface seals and casing/covers and maintaining open well screens by redevelopment. Any monitor wells and/or associated parts will be replaced as required to maintain the system in an operative state.

4.4 POST-CLOSURE COST ESTIMATE

The post-closure cost estimate is included in Section 8.0 of this closure plan.

5.0 EQUIPMENT LIST AND EQUIPMENT DECONTAMINATION PROCEDURE

The equipment associated with Facility 02 closure activities will include the following:

- ° Sampling equipment
- ° High pressure wash
- ° Personnel safety equipment

All equipment will be decontaminated by using a high pressure wash. If all visible contamination cannot be removed using this method, another appropriate method, such as those described in Step 2 of Section 2.0 of this plan will be used. Any equipment that cannot be decontaminated will be disposed of at an authorized facility. Additionally, all water used in the decontamination of the equipment will be disposed of at a facility authorized to dispose of such waste.

6.0 NOTIFICATION OF CLOSURE ACTIVITIES

Rexene will notify the Texas Water Commission (TWC) of closure activities, in writing, at least 45 days prior to the date on which closure will commence. This will afford TWC personnel the opportunity to observe the closure activities and split samples.

The TWC recommends in Technical Guideline No. 3 that landfills be covered with a four-foot clay cap with a permeability of less than 1×10^{-7} cm/sec. Rexene may substitute an alternative cover material for the clay cap such as the following:

- ° Concrete
- ° Soil-admix

Rexene will provide a demonstration that the alternative it chooses will at least meet the same infiltration rate of a four-foot clay cover. Plans and specifications for the alternative cover system will be submitted to the TWC at the time Rexene determines that the tank must be closed as a landfill.

7.0 CLOSURE SCHEDULE

A closure schedule for Facility 02 is summarized in Table 1. For each step, the number of days specified represents the maximum time expected to be required to complete the task. Based on this schedule, the estimated completion of the closure of this unit will require 31 weeks after notification is provided to the TWC. This schedule does not account for any delays which may be caused by force majeure, including without limitations, fires, floods, riots, or strikes. If any of the aforementioned circumstances occur, the owner/operator will submit a written request to the Executive Director of the TWC to extend the time allowed for closure.

8.0 CLOSURE AND POST-CLOSURE COST ESTIMATES

Estimated closure costs are provided in Table 2. These estimates are based on the assumption that all wastes will be shipped off-site for disposal at an authorized facility. The total cost for closure of Facility 02 is estimated to be \$318,290.00.

The post-closure cost estimate is listed in Table 2 and is based on a thirty-year post-closure care period. The total post-closure cost estimate for Facility 02 is \$109,414.00.

9.0 CLOSURE CERTIFICATION

Once closure at Facility 02 has been completed, the unit will be inspected by the owner/operator and an independent registered Professional Engineer, authorized by the State of Texas. A certification report will be submitted to the TWC by both the owner/operator and by the independent Registered Professional Engineer which will include a summary of the closure activities performed, the locations of the soil sampling points, and the results of the analyses for all soil and rinsate samples. Additionally, the report will include results of visual inspections completed during closure and after closure completion. During the visual inspection during the closure activities, the Professional Engineer will also verify that the closure is being implemented as stated in the closure plan. The report will indicate that a final inspection was performed and which will include a description of the integrity of the closed unit.

Once the independent, registered Professional Engineer has completed the visual inspections, and has verified that the closure activities were performed in accordance with the approved closure plan, he will certify that closure of Facility 02 has been completed.

TABLE 1
CLOSURE SCHEDULE

CLOSURE ACTIVITY	DURATION (DAYS)
NOTIFY THE TEXAS WATER COMMISSION OF CLOSURE ACTIVITIES	45
REMOVE WASTES FROM FACILITY 02	5
DECONTAMINATE FACILITY 02	42
TAKE FOUR BORINGS	1
ANALYZE BORINGS AND RINSATE	35
REMOVE CONTAMINATED SOILS	60
CERTIFY AND SUBMIT REPORT OF CLOSURE ACTIVITIES	<u>28</u>
TOTAL	216 Days

TABLE 2
CLOSURE AND POST-CLOSURE COST ESTIMATE
Facility 02

CLOSURE

DISPOSAL AND TRANSPORTATION COSTS	\$307,048.00
SAMPLING AND ANALYSIS COSTS	1,342.00
LABOR COSTS	8,800.00
CERTIFICATION OF CLOSURE COSTS	<u>1,100.00</u>

CLOSURE COSTS TOTAL	\$318,290.00
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POST-CLOSURE

*LANDFILL COVER COSTS	\$ 4,804.00
GROUNDWATER MONITORING WELLS INSTALLATION COSTS	13,200.00
SAMPLING AND ANALYTICAL COSTS	58,080.00
LABOR COSTS	13,860.00
MAINTENANCE COSTS	<u>19,470.00</u>

POST-CLOSURE COSTS TOTAL	\$109,414.00
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CLOSURE AND POST-CLOSURE COSTS TOTAL

\$318,290.00 + \$109,414.00 =	<u>\$427,704.00</u>
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*Contingent closure as a landfill

HAZARDOUS WASTE CONTAINER STORAGE AREA
Facility 03

1.0 INTRODUCTION

Facility 03 is an open concrete container storage area utilized for hazardous wastes generated from the polymer production processes. The storage area was placed in service in 1982 and has dimensions of 60 feet by 40 feet with 4" concrete containment curbs. The facility has a maximum design capacity of approximately 650 55-gallon drums. The wastes stored in Facility 03 include ignitable, corrosive, toxic and reactive materials. Waste constituents include the following:

- xylene
- heptane
- hexane
- chromium
- lead
- chlorinated solvents

2.0 PROCEDURES FOR CLOSING FACILITY 03

The closing of Facility 03 will include the following steps.

1. Removal of all containers;
2. Decontamination of the container storage area;
3. Collection of a final rinsate sample;
4. Inspection of the container storage area;
5. Inspection of soils surrounding Facility 03;
6. Collection of soil samples surrounding Facility 03; and
7. Removal of contaminated soils.

Step 1 Removal of All Waste Containers

Facility 03 has a maximum capacity of approximately 650 55-gallon containers with a total capacity of approximately 35,750 gallons. At the time of closure, all hazardous waste will be transported off-site to a facility authorized to receive hazardous waste.

Step 2 Decontamination of the Container Storage Area

Residual wastes will be removed from Facility 03 by high pressure wash or by another appropriate method such as, but not limited to, a detergent wash or a chemical wash. The container storage area will be washed until all signs of visible contamination are removed. The rinsate generated from the removal process will be collected and transferred to a facility authorized to receive such waste.

Step 3 Collection of Samples of the Final Rinsate

After the container storage area has been rinsed, the owner/operator will collect a representative sample of the final rinsate. The rinsate will be analyzed for the following constituents:

- ° xylene
- ° heptane

- ° hexane
- ° chromium
- ° lead
- ° methylene chloride
- ° 1,1,1-trichlorethane

If the rinsate analyses indicate there is less than 1 ppm of the aforementioned constituents, the container storage area will be considered clean. If the rinsate analyses indicate that there is greater than 1 ppm of any constituent, Step 2 will be repeated until the 1 ppm clean-up criteria is met.

Step 4 Inspection of the Container Storage Area

Rexene will visually inspect the container storage area after the decontamination procedure. This inspection will be included in the certification report that will be submitted after the closure activities have been completed. In the certification report, the registered professional engineer will indicate that all visual contamination has been removed and will submit a statement indemnifying the integrity of the containment system.

Step 5 Inspection of Soils Surrounding Facility 03

Rexene will inspect the soils surrounding Facility 03 to determine whether there has been any soil contamination due to the operation of the container storage area. In the area where the soils are visually contaminated, Rexene will remove the soils.

Step 6 Collection of Soil Samples Surrounding Facility 03

Rexene will sample the soils in the areas where visually contaminated soils were removed to ensure that all contamination has been removed. The samples will be taken at a depth of six inches and will be analyzed for the constituents previously mentioned. Metals will be analyzed for using the EP toxicity procedure.

These samples will be compared to a background sample taken from an area of the plant unaffected by waste management. If the samples exhibit concentrations that are less than or equal to background constituent concentrations, Facility 03 will be considered "clean" closed.

Step 7 Removal of Contaminated Soils

If the analysis of the soils around Facility 03 indicate any constituents at levels above the background standard, the contaminated soils will be removed. In the area where contamination is present, Rexene will remove six inches of soil. The area will then be resampled at a depth of six inches below the initial sampling point and will be re-analyzed. The process will be repeated until all contaminated soil is removed. All contaminated soils will be disposed of at an off-site facility authorized to receive such waste.

3.0 EQUIPMENT LIST AND EQUIPMENT DECONTAMINATION PROCEDURES

The equipment associated with the Facility 03 closure activities will include the following:

- ° Forklift
- ° High pressure wash
- ° Personnel safety equipment
- ° Sampling equipment

The forklift will be decontaminated with a high pressure wash. If all visible contamination cannot be removed by the water wash, other appropriate methods will be used. Decontamination procedures for the personnel safety equipment and sampling equipment will include, but will not be limited to, a water wash or a detergent wash. Any equipment that cannot be decontaminated will be disposed of at an authorized facility. Additionally, all water used to decontaminate the equipment will be collected and transferred to a facility authorized to receive such waste.

4.0 NOTIFICATION OF CLOSURE ACTIVITIES

Rexene will notify the Texas Water Commission (TWC) of closure activities, in writing, at least 45 days prior to the date on which closure will commence. This will afford TWC personnel the opportunity to observe the closure activities and split samples.

5.0 CLOSURE SCHEDULE

A closure schedule for Facility 03 is summarized in Table 1. For each step, the number of days specified represents the maximum time expected to be required to complete the task. Based on this schedule, the completion of the closure of this unit will require 24 weeks after notification is provided to the TWC. This schedule does not account for any delays which may be caused by force majeure, including without limitations, fires, floods, riots, or strikes. If any of the aforementioned circumstances occur, the owner/operator will submit a written request to the Executive Director of the TWC to extend the time allowed for closure.

6.0 CLOSURE COSTS

Estimated closure costs are provided in Table 2. These estimates are based on the assumption that all wastes will be shipped off-site for disposal to an authorized TSD facility. The total cost for closure of Facility 03 is estimated to be \$261,556.00.

7.0 CLOSURE CERTIFICATION

Once closure at Facility 03 has been completed, the unit will be inspected by the owner/operator and an independent registered Professional Engineer, authorized by the State of Texas. A certification report will be submitted by both the owner/operator and by the independent registered Professional Engineer which will include a summary of the closure activities performed, the location of the soil samples and the results of the analyses for all of the soil samples. The report will also include the results of visual inspections completed during closure and after closure completion. Once the independent registered Professional Engineer has completed the visual inspections, and has verified that the closure activities were performed in accordance with the approved closure plan, he will certify that the closure has been completed.

TABLE 1
CLOSURE SCHEDULE

CLOSURE ACTIVITY	DURATION (DAYS)
NOTIFY THE TEXAS WATER COMMISSION OF CLOSURE ACTIVITIES	45
REMOVE WASTES FROM FACILITY 03	5
DECONTAMINATE FACILITY 03	5
SAMPLE RINSATE FROM DECONTAMINATION ACTIVITIES	1
VISUALLY INSPECT SURROUNDING AREAS FOR CONTAMINATION	1
REMOVE CONTAMINATED SOILS	14
ANALYZE SOIL AND RINSATE SAMPLES	35
CERTIFY AND SUBMIT REPORT OF CLOSURE ACTIVITIES	<u>28</u>
TOTAL	134 Days

TABLE 2
CLOSURE COST ESTIMATE

DISPOSAL AND TRANSPORTATION COSTS	\$234,436.00
SAMPLING AND ANALYTICAL COSTS	2,500.00
LABOR COSTS	3,520.00
CERTIFICATION OF CLOSURE COSTS	<u>1,100.00</u>
TOTAL	\$261,556.00

SLOP OIL STORAGE TANK

Facility 05

Tank Tk-0401

1.0 INTRODUCTION

Facility 05 is a closed top tank used to accumulate waste oils which can periodically exhibit the characteristic of ignitability. The tank was placed in service in 1976 and has a maximum design capacity of 8400 gallons. The tank construction is carbon steel with a diameter of 12 feet and a height of 10 feet.

2.0 PROCEDURES FOR CLOSING OF FACILITY 05

The following steps will be followed during closure proceedings for Facility 05:

1. Removal of residual waste;
2. Collection of final rinsate sample;
3. Removal of visually contaminated soils;
4. Collection of soil samples; and
5. Removal of contaminated soils.

Step 1 Removal of Residual Wastes

All residual wastes will be removed by using a high power wash or another appropriate method such as a detergent or chemical wash or sandblasting. The tank will be rinsed until all signs of contamination have been removed. All rinsate will be disposed at a facility authorized to receive such waste.

Step 2 Collection of Final Rinsate Sample

Rexene will collect a sample of the final rinsate following the rinsing of the tank. The rinsate will be analyzed for the following parameters:

- hexane
- ignitability

If the rinsate analysis indicates a concentration of hexane to be less than 1 ppm and does not exhibit the characteristic of ignitability, the tank will be considered clean. Step 1 will be repeated if necessary, until these conditions are satisfied.

Step 3 Removal of Visually Contaminated Soils

Prior to soil sampling, Rexene will inspect the soils surrounding Facility 05 to determine whether there have been releases. Rexene will remove all visually contaminated soils prior to sampling the site. All contaminated soils will be disposed at a facility authorized to dispose of such waste.

Step 4 Collection of Samples Surrounding the Tank

Rexene will sample the soils surrounding the tank to ensure that all waste constituents in the soil have been removed. Four soil samples will be taken in the areas surrounding the tank where signs of visible contamination were observed. This will ensure that the soils with the highest potential for contamination are sampled. If there are no visible signs of contamination, Rexene will sample the soils on all four sides of the tank in order to cover all areas that contamination might have occurred.

The four samples will be sampled at a depth of six inches and will be analyzed for hexane. These samples will be compared to a background sample taken from an area of the plant unaffected by waste management. If all four samples exhibit constituent concentrations that are less than the background constituent concentrations, Facility 05 will be considered "clean" closed.

Step 5 Removal of Contaminated Soils

If the analysis indicates that the hexane concentration is above the background standard, the remaining contaminated soils will be removed. In the areas where contamination occurs, Rexene will remove six inches of soil. The soil will then be resampled at a depth of six inches below the initial sampling point and will be re-analyzed for hexane. This process will be repeated until all contaminated soil is removed. All contaminated soils will be disposed of at a facility authorized to receive such waste unless it is determined that all soils cannot be practically removed. At that point Rexene will place all excavated soil back in the area of the tank and will close the tank as a landfill, following the procedures in Section 3.0 of this closure plan.

A groundwater monitoring system will be installed for post closure monitoring. The system will consist of a minimum of 1 upgradient and 3 downgradient monitor wells. The location of the wells will be submitted to the TWC at the time that is determined that Facility 05 will be closed as a landfill.

The survey data of the location of the tank will be submitted to the appropriate authorities in order to deed record the area as a solid waste landfill.

3.0 CONTINGENT CLOSURE PLAN AS A LANDFILL

Rexene will close Facility 05 as a landfill, pursuant to 40 CFR Part 264.310, if all contaminated soils cannot be practically removed. The tank will be recycled or reused if possible or cut into pieces and disposed of at an authorized facility. Rexene will cover the tank area with a cap which will minimize infiltration, which in turn, will prevent the migration of contaminants into the groundwater.

4.0 CONTINGENT POST-CLOSURE CARE PLAN

Rexene will perform post-closure care at Facility 05 for a period of 30 years after final closure. The post-closure care plan addresses the following:

- ° Monitoring the closed area
- ° Inspection of the closed area
- ° Maintenance of the closed area
- ° Post-closure cost estimate.

4.1 MONITORING THE CLOSED AREA

Groundwater monitoring will be conducted on a semi-annual basis. Rexene will monitor the groundwater for hexane. The parameter(s) selected for groundwater monitoring will be submitted to the TWC at the time that it is determined that Facility 05 must be closed as a landfill.

4.2 INSPECTION OF THE CLOSED AREA

Rexene will inspect the closed area on a semi-annual basis for the condition of the cover (e.g. cracks, uneven settlement), warning signs, monitor wells (e.g. missing locks) and benchmarks.

4.3 MAINTENANCE OF THE CLOSED AREA

The following post-closure maintenance activities will be implemented in this area as necessary:

- ° Cover system maintenance
- ° Groundwater monitoring system maintenance

Cover system maintenance will include maintaining the cover, benchmarks, and warning signs. The cover, benchmarks, and warning signs will be maintained on a semi-annual basis. The cover will be inspected for evidence of degradation (cracks or gaps). Rexene will repair the cover upon observance of degradation. The benchmarks will be inspected to determine

whether they have been damaged or removed. Rexene will repair or replace any damaged or missing benchmarks and re-survey the area. Warning signs will be inspected to ensure that the signs are legible. If the signs are damaged or missing, Rexene will repair or replace the signs.

Rexene will maintain all groundwater monitoring equipment and wells in an operational state to ensure that representative groundwater samples can be collected. Maintenance of the groundwater system will include replacing missing locks, replacing defective or broken surface seals and casing/covers and maintaining open well screens by redevelopment. Any monitor wells and/or associated parts will be replaced as required to maintain the system in an operative state.

4.4 POST-CLOSURE COST ESTIMATE

The post-closure cost estimate is included in Section 8.0 of this closure plan.

5.0 EQUIPMENT LIST AND EQUIPMENT DECONTAMINATION PROCEDURE

The equipment associated with Facility 05 closure activities will include the following:

- ° Sampling equipment
- ° High pressure wash
- ° Personnel safety equipment

All equipment will be decontaminated by using a high pressure wash. If all visible contamination cannot be removed using this method, another appropriate method, such as those described in Step 2 of Section 2.0 of this plan will be used. Any equipment that cannot be decontaminated will be disposed of at an authorized facility. Additionally, all water used in the decontamination of the equipment will be disposed of at a facility authorized to dispose of such waste.

6.0 NOTIFICATION OF CLOSURE ACTIVITIES

Rexene will notify the Texas Water Commission (TWC) of closure activities, in writing, at least 45 days prior to the date on which closure will commence. This will afford TWC personnel the opportunity to observe the closure activities and split samples.

The TWC recommends in Technical Guideline No. 3 that landfills be covered with a four-foot clay cap with a permeability of less than 1×10^{-7} cm/sec. Rexene may substitute an alternative cover material for the clay cap such as the following:

- Concrete
- Soil-admix

Rexene will provide a demonstration that the alternative it chooses will at least meet the same infiltration rate of a four-foot clay cover. Plans and specifications for the alternative cover system will be submitted to the TWC at the time Rexene determines that the tank must be closed as a landfill.

7.0 CLOSURE SCHEDULE

A closure schedule for Facility 05 is summarized in Table 1. For each step, the number of days specified represents the maximum time expected to be required to complete the task. Based on this schedule, the estimated completion of the closure of this unit will require 31 weeks after notification is provided to the TWC. This schedule does not account for any delays which may be caused by force majeure, including without limitations, fires, floods, riots, or strikes. If any of the aforementioned circumstances occur, the owner/operator will submit a written request to the Executive Director of the TWC to extend the time allowed for closure.

8.0 CLOSURE AND POST-CLOSURE COST ESTIMATES

Estimated closure costs are provided in Table 2. These estimates are based on the assumption that all wastes will be shipped off-site for disposal to an authorized TSD facility. The total cost for closure of facility 05 is estimated to be \$64,271.00.

The post-closure cost estimate is listed in Table 2. The estimate is based on a thirty year post-closure care period. The total post-closure cost estimate for Facility 05 is \$106,118.00.

9.0 CLOSURE CERTIFICATION

Once closure at Facility 05 has been completed, the unit will be inspected by the owner/operator and an independent registered Professional Engineer, authorized by the State of Texas. A certification report will be submitted to the TWC by both the owner/operator and by the independent registered Professional Engineer which will include a summary of the closure activities performed, the location of the soil borings, and the results of the analyses for all of the soil and rinsate samples. The report will also include the results of visual inspections completed during closure and after closure completion. Once the independent registered Professional Engineer has completed the visual inspections, and has verified that the closure activities were performed in accordance with the approved closure plan, he will certify that closure of the facility has been completed.

TABLE I
CLOSURE SCHEDULE

CLOSURE ACTIVITY	DURATION (DAYS)
NOTIFY THE TEXAS WATER COMMISSION OF CLOSURE ACTIVITIES	45
REMOVE WASTES FROM THE FACILITY 05	5
DECONTAMINATE FACILITY 05	42
TAKE FOUR BORINGS	1
ANALYZE BORINGS AND RINSATE	35
REMOVE CONTAMINATED SOILS	60
CERTIFY AND SUBMIT REPORT OF CLOSURE ACTIVITIES	<u>28</u>
TOTAL	216 Days

TABLE 2
CLOSURE AND POST-CLOSURE COST ESTIMATE
Facility 05

CLOSURE

DISPOSAL AND TRANSPORTATION COSTS	\$ 53,029.00
SAMPLING AND ANALYSIS COSTS	1,342.00
LABOR COSTS	8,800.00
CERTIFICATION OF CLOSURE COSTS	<u>1,100.00</u>
CLOSURE COSTS TOTAL	\$ 64,271.00

POST-CLOSURE

*LANDFILL COVER COSTS	\$ 1,238.00
GROUNDWATER MONITORING WELLS INSTALLATION COSTS	13,200.00
SAMPLING AND ANALYSIS COSTS	58,080.00
LABOR COSTS	13,860.00
MAINTENANCE COSTS	<u>19,470.00</u>
POST-CLOSURE COSTS TOTAL	\$106,118.00

CLOSURE AND POST-CLOSURE COSTS TOTAL	
\$64,271.00 + 106,118.00 =	<u>\$170,389.00</u>

*Contingency Plan

PEROXIDE NEUTRALIZATION TANK

Facility 06

Tank V-2304

1.0 INTRODUCTION

Facility 06 is an enclosed pressure vessel supported on 4 steel legs used to treat waste initiator (peroxides) in hexane from the polyethylene production process. The tank was placed in service in 1977 and has a design capacity of 550 gallons. The tank construction material is stainless steel with an exterior carbon steel jacket.

2.0 PROCEDURES FOR CLOSING OF FACILITY 06

The following steps will be followed during closure proceedings for Facility 06:

1. Removal of residual waste;
2. Collection of final rinsate sample

Step 1 Removal of Residual Waste

All residual wastes will be removed by water wash followed by steaming or another appropriate method such as a detergent or chemical wash. The tank will be rinsed until all signs of contamination have been removed. All rinsate will be disposed at a facility authorized to receive such waste.

Step 2 Collection of Final Rinsate Sample

Rexene will collect a sample of the final rinsate following the rinsing of the tank. The rinsate will be analyzed for hexane and ignitability. Peroxides will not be included in the analysis since the water wash and steaming will hydrolyze the components due to their unstable and reactive nature. If the rinsate analysis indicates the concentration of hexane to be less than 1 ppm and does not exhibit the characteristic of ignitability, the tank will be considered clean. Step 1 will be repeated if necessary until these conditions are satisfied.

Since the area around this vessel is concrete with a drain to the chemical sewer which feeds to an off-site treatment facility, no soil contamination is expected. Soil samples from the closest point to the facility will be taken and analyzed and subsequently compared to a background sample. The background sample will be collected from an area unaffected by waste management. The soil samples will be analyzed for hexane and heptane which are the carriers of the peroxides and which would be constituents of most concern.

3.0 CONTINGENT CLOSURE PLAN FOR CLOSURE AS A LANDFILL

Rexene will close Facility 06 as a landfill if for some unexpected reason contamination around the facility is discovered during closure which cannot be practically removed. The tank vessel will be recycled or reused if possible or cut into pieces and disposed of at an authorized facility. Rexene will cover the area with a cap which will minimize infiltration, which in turn, will prevent migration of contaminants into the groundwater.

4.0 CONTINGENT POST-CLOSURE CARE PLAN

Rexene will perform post-closure care at Facility 06 for a period of 30 years after final closure. The post-closure care plan addresses the following:

- ° Monitoring the closed area
- ° Inspection of the closed area
- ° Maintenance of the closed area
- ° Post-closure cost estimate.

4.1 MONITORING THE CLOSED AREA

Groundwater monitoring will be conducted on a semi-annual basis. The parameter(s) selected for groundwater monitoring will be submitted to the TWC at the time that it is determined that Facility 06 must be closed as a landfill.

4.2 INSPECTION OF THE CLOSED AREA

Rexene will inspect the closed area on a semi-annual basis for the condition of the cover (e.g. cracks, uneven settlement), warning signs, monitor wells (e.g. missing locks) and benchmarks.

4.3 MAINTENANCE OF THE CLOSED AREA

The following post-closure maintenance activities will be implemented in this area as necessary:

- ° Cover system maintenance
- ° Groundwater monitoring system maintenance

Cover system maintenance will include maintaining the cover, benchmarks, and warning signs. The cover, benchmarks, and warning signs will be maintained on a semi-annual basis. The cover will be inspected for evidence of degradation (cracks or gaps). Rexene will repair the cover upon observance of degradation. The benchmarks will be inspected to determine whether they have been damaged or removed. Rexene will repair

or replace any damaged or missing benchmarks and re-survey the area. Warning signs will be inspected to ensure that the signs are legible. If the signs are damaged or missing, Rexene will repair or replace the signs.

Rexene will maintain all groundwater monitoring equipment and wells in an operational state to ensure that representative groundwater samples can be collected. Maintenance of the groundwater system will include replacing missing locks, replacing defective or broken surface seals and casing/covers and maintaining open well screens by redevelopment. Any monitor wells and/or associated parts will be replaced as required to maintain the system in an operative state.

4.4 POST-CLOSURE COST ESTIMATE

The post-closure cost estimate is included in Section 8.0 of this closure plan.

5.0 EQUIPMENT LIST AND EQUIPMENT DECONTAMINATION PROCEDURE

The equipment associated with Facility 06 closure activities will include the following:

- ° Sampling equipment
- ° High pressure wash
- ° Personnel safety equipment

All equipment will be decontaminated by using a high pressure wash. If all visible contamination cannot be removed using this method, another appropriate method, such as those described in Step 2 of Section 2.0 of this plan will be used. Any equipment that cannot be decontaminated will be disposed of at an authorized facility. Additionally, all water used in the decontamination of the equipment will be disposed of at a facility authorized to dispose of such waste.

6.0 NOTIFICATION OF CLOSURE ACTIVITIES

Rexene will notify the Texas Water Commission (TWC) of closure activities, in writing, at least 45 days prior to the date on which closure will commence. This will afford TWC personnel the opportunity to observe the closure activities and split samples.

The TWC recommends in Technical Guideline No. 3 that landfills be covered with a four-foot clay cap with a permeability of less than 1×10^{-7} cm/sec. Rexene may substitute an alternative cover material for the clay cap such as the following:

- Concrete
- Soil-admix

Rexene will provide a demonstration that the alternative it chooses will at least meet the same infiltration rate of a four-foot clay cover. Plans and specifications for the alternative cover system will be submitted to the TWC at the time Rexene determines that the tank must be closed as a landfill.

7.0 CLOSURE SCHEDULE

A closure schedule for Facility 06 is summarized in Table 1. For each step, the number of days specified represents the maximum time expected to be required to complete the task. Based on this schedule, the estimated completion of the closure of this unit will require 31 weeks after notification is provided to the TWC. This schedule does not account for any delays which may be caused by force majeure, including without limitations, fires, floods, riots, or strikes. If any of the aforementioned circumstances occur, the owner/operator will submit a written request to the Executive Director of the TWC to extend the time allowed for closure.

8.0 CLOSURE AND POST-CLOSURE COST ESTIMATES

Estimated closure costs are provided in Table 2. These estimates are based on the assumption that all wastes will be shipped off-site for disposal to an authorized TSD facility. The total cost for closure of Facility 06 is estimated to be \$11,684.00.

The post-closure cost estimate is listed in Table 2. The estimate is based on a thirty year post-closure care period. The total post-closure cost estimate for Facility 06 is \$104,723.00.

9.0 CLOSURE CERTIFICATION

Once closure at Facility 06 has been completed, the unit will be inspected by the owner/operator and an independent registered Professional Engineer, authorized by the State of Texas. A certification report will be submitted to the TWC by both the owner/operator and by the independent registered Professional Engineer which will include a summary of the closure activities performed, the location of the soil borings, and the results of the analyses for all of the soil and rinsate samples. The report will also include the results of visual inspections completed during closure and after closure completion. Once the independent registered Professional Engineer has completed the visual inspections, and has verified that the closure activities were performed in accordance with the approved closure plan, he will certify that closure of the facility has been completed.

TABLE 1
CLOSURE SCHEDULE

CLOSURE ACTIVITY	DURATION (DAYS)
NOTIFY THE TEXAS WATER COMMISSION OF CLOSURE ACTIVITIES	45
REMOVE WASTES FROM THE FACILITY 06	5
DECONTAMINATE FACILITY 06	42
SAMPLE SOIL CLOSEST TO FACILITY	1
ANALYZE SOIL SAMPLES RINSATE	35
REMOVE CONTAMINATED SOILS IF NECESSARY	60
CERTIFY AND SUBMIT REPORT OF CLOSURE ACTIVITIES	<u>28</u>
TOTAL	216 Days

TABLE 2
CLOSURE AND POST-CLOSURE COST ESTIMATE
FACILITY 06

CLOSURE

DISPOSAL AND TRANSPORTATION COSTS	\$ 442.00
SAMPLING AND ANALYSIS COSTS	1,342.00
LABOR COSTS	8,800.00
CERTIFICATION OF CLOSURE COSTS	<u>1,100.00</u>
CLOSURE COSTS TOTAL	\$ 11,684.00

POST-CLOSURE

*LANDFILL COVER COSTS	\$ 113.00
GROUNDWATER MONITORING WELLS INSTALLATION COSTS	13,200.00
SAMPLING AND ANALYSIS COSTS	58,080.00
LABOR COSTS	13,860.00
MAINTENANCE COSTS	<u>19,470.00</u>
POST-CLOSURE COSTS TOTAL	\$104,723.00

CLOSURE AND POST-CLOSURE COSTS TOTAL	
\$11,684.00 + \$104,723.00 =	<u>\$116,407.00</u>

*Contingency Plan

FOULED SOLVENT STORAGE TANK

Facility 08

Tank TK 2903

1.0 INTRODUCTION

Facility 08 is a closed top tank used to accumulate xylene or naphtha contaminated with polyethylene polymer. The tank was originally placed in service in 1976 and has a maximum design capacity of approximately 18,000 gallons. The tank construction material consists of carbon steel and has a diameter of 12 feet and a height of 20 feet. Facility 08 is currently inactive awaiting the installation of secondary containment meeting the requirements of 40 CFR § 264 Subpart J - Tank Systems.

2.0 PROCEDURES FOR CLOSING OF FACILITY 08

The following steps will be followed during closure proceedings for Facility 08:

1. Removal of residual waste;
2. Collection of final rinsate sample;
3. Removal of visually contaminated soils;
4. Collection of soil samples; and
5. Removal of contaminated soils.

Step 1 Removal of Residual Wastes

All residual wastes will be removed by using a high power wash or another appropriate method such as a detergent or chemical wash or sandblasting. The tank will be rinsed until all signs of contamination have been removed. All rinsate will be disposed at a facility authorized to receive such waste.

Step 2 Collection of Final Rinsate Sample

Rexene will collect a sample of the final rinsate following the rinsing of the tank. The rinsate will be analyzed for the following parameters:

- ° xylene
- ° naphtha
- ° ignitability

If the rinsate analysis indicates a concentration of xylene and naphtha to be less than 1 ppm and does not exhibit the characteristic of ignitability, the tank will be considered clean. Step 1 will be repeated if necessary, until these conditions are satisfied.

Step 3 Removal of Visually Contaminated Soils

Prior to soil sampling, Rexene will inspect the soils surrounding Facility 08 to determine whether there have been releases. Rexene will remove all visually contaminated soils prior to sampling the site. All contaminated soils will be disposed at a facility authorized to dispose of such waste.

Step 4 Collection of Samples Surrounding the Tank

Rexene will sample the soils surrounding the tank to ensure that all waste constituents in the soil have been removed. Four soil samples will be taken in the areas surrounding the tank where signs of visible contamination were observed. This will ensure that the soils with the highest potential for contamination are sampled. If there are no visible signs of contamination, Rexene will sample the soils on all four sides of the tank in order to cover all areas that contamination might have occurred.

The four samples will be sampled at a depth of six inches and will be analyzed for xylene and naphtha. These samples will be compared to a background sample taken from an area of the plant unaffected by waste management. If all four samples exhibit constituent concentrations that are less than the background constituent concentrations, Facility 08 will be considered "clean" closed.

Step 5 Removal of Contaminated Soils

If the analysis indicates that the xylene or naphtha concentration is above the background standard, the remaining contaminated soils will be removed. In the areas where contamination occurs, Rexene will remove six inches of soil. The soil will then be resampled at a depth of six inches below the initial sampling point and will be re-analyzed for xylene and/or naphtha. This process will be repeated until all contaminated soil is removed. All contaminated soils will be disposed of at a facility authorized to receive such waste unless it is determined that all soils cannot be practically removed. At that point Rexene will place all excavated soil back in the area of the tank and will close the tank as a landfill, following the procedures in Section 3.0 of this closure plan.

A groundwater monitoring system will be installed for post closure monitoring. The system will consist of a minimum of 1 upgradient and 3 downgradient monitor wells. The location of the wells will be submitted to the TWC at the time that is determined that Facility 08 will be closed as a landfill.

The survey data of the location of the tank will be submitted to the appropriate authorities in order to deed record the area as a solid waste landfill.

3.0 CONTINGENT CLOSURE PLAN AS A LANDFILL

Rexene will close Facility 08 as a landfill, pursuant to 40 CFR Part 264.310, if all contaminated soils cannot be practically removed. The tank will be recycled or reused if possible or cut into pieces and disposed of at an authorized facility. Rexene will cover the tank area with a cap which will minimize infiltration, which in turn, will prevent the migration of contaminants into the groundwater.

4.0 CONTINGENT POST-CLOSURE CARE PLAN

Rexene will perform post-closure care at Facility 08 for a period of 30 years after final closure. The post-closure care plan addresses the following:

- ° Monitoring the closed area
- ° Inspection of the closed area
- ° Maintenance of the closed area
- ° Post-closure cost estimate.

4.1 MONITORING THE CLOSED AREA

Groundwater monitoring will be conducted on a semi-annual basis. Rexene will monitor the groundwater for xylene and/or naphtha. The parameter(s) selected for groundwater monitoring will be submitted to the TWC at the time that it is determined that Facility 08 must be closed as a landfill.

4.2 INSPECTION OF THE CLOSED AREA

Rexene will inspect the closed area on a semi-annual basis for the condition of the cover (e.g. cracks, uneven settlement), warning signs, monitor wells (e.g. missing locks) and benchmarks.

4.3 MAINTENANCE OF THE CLOSED AREA

The following post-closure maintenance activities will be implemented in this area as necessary:

- ° Cover system maintenance
- ° Groundwater monitoring system maintenance

Cover system maintenance will include maintaining the cover, benchmarks, and warning signs. The cover, benchmarks, and warning signs will be maintained on a semi-annual basis. The cover will be inspected for evidence of degradation (cracks or gaps). Rexene will repair the cover upon observance of degradation. The benchmarks will be inspected to determine

whether they have been damaged or removed. Rexene will repair or replace any damaged or missing benchmarks and re-survey the area. Warning signs will be inspected to ensure that the signs are legible. If the signs are damaged or missing, Rexene will repair or replace the signs.

Rexene will maintain all groundwater monitoring equipment and wells in an operational state to ensure that representative groundwater samples can be collected. Maintenance of the groundwater system will include replacing missing locks, replacing defective or broken surface seals and casing/covers and maintaining open well screens by redevelopment. Any monitor wells and/or associated parts will be replaced as required to maintain the system in an operative state.

4.4 POST-CLOSURE COST ESTIMATE

The post-closure cost estimate is included in Section 8.0 of this closure plan.

5.0 EQUIPMENT LIST AND EQUIPMENT DECONTAMINATION PROCEDURE

The equipment associated with Facility 08 closure activities will include the following:

- ° Sampling equipment
- ° High pressure wash
- ° Personnel safety equipment

All equipment will be decontaminated by using a high pressure wash. If all visible contamination cannot be removed using this method, another appropriate method, such as those described in Step 2 of Section 2.0 of this plan will be used. Any equipment that cannot be decontaminated will be disposed of at an authorized facility. Additionally, all water used in the decontamination of the equipment will be disposed of at a facility authorized to dispose of such waste.

6.0 NOTIFICATION OF CLOSURE ACTIVITIES

Rexene will notify the Texas Water Commission (TWC) of closure activities, in writing, at least 45 days prior to the date on which closure will commence. This will afford TWC personnel the opportunity to observe the closure activities and split samples.

The TWC recommends in Technical Guideline No. 3 that landfills be covered with a four-foot clay cap with a permeability of less than 1×10^{-7} cm/sec. Rexene may substitute an alternative cover material for the clay cap such as the following:

- Concrete
- Soil-admix

Rexene will provide a demonstration that the alternative it chooses will at least meet the same infiltration rate of a four-foot clay cover. Plans and specifications for the alternative cover system will be submitted to the TWC at the time Rexene determines that the tank must be closed as a landfill.

7.0 CLOSURE SCHEDULE

A closure schedule for Facility 08 is summarized in Table 1. For each step, the number of days specified represents the maximum time expected to be required to complete the task. Based on this schedule, the estimated completion of the closure of this unit will require 31 weeks after notification is provided to the TWC. This schedule does not account for any delays which may be caused by force majeure, including without limitations, fires, floods, riots, or strikes. If any of the aforementioned circumstances occur, the owner/operator will submit a written request to the Executive Director of the TWC to extend the time allowed for closure.

8.0 CLOSURE AND POST-CLOSURE COST ESTIMATES

Estimated closure costs are provided in Table 2. These estimates are based on the assumption that all wastes will be shipped off-site for disposal to an authorized TSD facility. The total cost for closure of Facility 08 is estimated to be \$139,720.00.

The post-closure cost estimate is listed in Table 2. The estimate is based on a thirty year post-closure care period. The total post-closure cost estimate for Facility 08 is \$109,366.00.

9.0 CLOSURE CERTIFICATION

Once closure at Facility 08 has been completed, the unit will be inspected by the owner/operator and an independent registered Professional Engineer, authorized by the State of Texas. A certification report will be submitted to the TWC by both the owner/operator and by the independent registered Professional Engineer which will include a summary of the closure activities performed, the location of the soil borings, and the results of the analyses for all of the soil and rinsate samples. The report will also include the results of visual inspections completed during closure and after closure completion. Once the independent registered Professional Engineer has completed the visual inspections, and has verified that the closure activities were performed in accordance with the approved closure plan, he will certify that closure of the facility has been completed.

TABLE 1
CLOSURE SCHEDULE

CLOSURE ACTIVITY	DURATION (DAYS)
NOTIFY THE TEXAS WATER COMMISSION OF CLOSURE ACTIVITIES	45
REMOVE WASTES FROM THE FACILITY 08	5
DECONTAMINATE FACILITY 08	42
TAKE FOUR BORINGS	1
ANALYZE BORINGS AND RINSATE	35
REMOVE CONTAMINATED SOILS	60
CERTIFY AND SUBMIT REPORT OF CLOSURE ACTIVITIES	<u>28</u>
TOTAL	216 Days

TABLE 2
CLOSURE AND POST-CLOSURE COST ESTIMATE
FACILITY 08

CLOSURE

DISPOSAL AND TRANSPORTATION COSTS	\$128,478.00
SAMPLING AND ANALYSIS COSTS	1,342.00
LABOR COSTS	8,800.00
CERTIFICATION OF CLOSURE COSTS	<u>1,100.00</u>
CLOSURE COSTS TOTAL	\$139,720.00

POST CLOSURE

*LANDFILL COVER COSTS	\$ 4,756.00
GROUNDWATER MONITORING WELLS INSTALLATION COSTS	13,200.00
SAMPLING AND ANALYSIS COSTS	48,080.00
LABOR COSTS	13,860.00
MAINTENANCE COSTS	<u>19,470.00</u>
POST-CLOSURE COSTS TOTAL	\$109,366.00

CLOSURE AND POST-CLOSURE COSTS TOTAL

$\$139,720.00 + \$109,366.00 =$	<u>\$249,086.00</u>
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*Contingency Plan